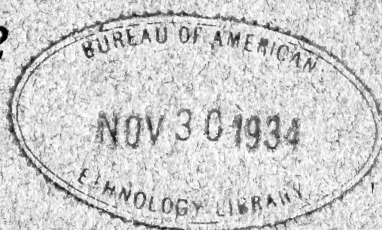


Forty-ninth Annual Report
of the
**BUREAU OF AMERICAN
ETHNOLOGY**

1931-1932



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SMITHSONIAN INSTITUTION
WASHINGTON
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FORTY-NINTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1931-1932



BUREAU OF
AMERICAN
ETHNOLOGY

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1933

to VARIOUS
NATIONS
AND
COUNTRIES

LETTER OF TRANSMITTAL

SMITHSONIAN INSTITUTION,
BUREAU OF AMERICAN ETHNOLOGY,
Washington, D. C., July 1, 1932.

SIR: I have the honor to submit herewith the Forty-ninth Annual Report of the Bureau of American Ethnology for the fiscal year ended June 30, 1932.

With appreciation of your aid in the work under my charge, I am
Very respectfully yours,

M. W. STIRLING,
Chief.

Dr. C. G. ABBOT,
Secretary of the Smithsonian Institution.

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NOTE

The Forty-eighth Annual Report of the Bureau is the last of this series to be published in royal octavo size with accompanying scientific papers. In the future, annual reports of the Bureau will consist only of the administrative report, which will be issued in octavo form.

FORTY-NINTH ANNUAL REPORT

OF THE

BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1932, conducted in accordance with the act of Congress approved February 23, 1931. The act referred to contains the following item:

American ethnology: For continuing ethnological researches among the American Indians and the natives of Hawaii, the excavation and preservation of archeologic remains under the direction of the Smithsonian Institution, including necessary employees, the preparation of manuscripts, drawings, and illustrations, the purchase of books and periodicals, and traveling expenses, \$72,640.

SYSTEMATIC RESEARCHES

M. W. Stirling, chief, left New York on September 26, 1931, as a member of the Latin American expedition to South America. The first region visited by the expedition was the San Blas coast of Panama. Here Mr. Stirling spent approximately a month in making an ethnological survey of the Tule Indians. From Panama the expedition proceeded to Ecuador, where three weeks were spent in investigating archeological sites in the Andean highlands in the vicinity of Cuenca. After crossing the Andes and descending to the frontier post of Mendez, three months were spent among the Jivaro Indians of the Santiago and Marañon Rivers. The expedition crossed the mountains from Mendez to the upper Yaupe River. They then descended the Yaupe to the Santiago, passing down this river to its junction with the Marañon. Much of the time was spent living with the Jivaros in their own houses, where Mr. Stirling was able to record first-hand a considerable quantity of ethnological data. In addition to this a collection was made representing the material culture of the Indians of the region. After a short excursion up the Alto Marañon, the expedition passed through the famous Pongo

Manseriche, descending by rafts to Iquitos, from which point the collections were shipped by way of the Amazon River to the National Museum. Mr. Stirling returned to Washington on April 26, 1932.

Dr. John R. Swanton, ethnologist, was in the field from November 2 to December 6, 1931, his object being the location of the route followed by De Soto and Moscoso through Arkansas and Louisiana from 1541 to 1543. He was the guest for a part of this time of Col. John R. Fordyce, of Hot Springs National Park, Ark. More success was attained in determining the probable course of the Spaniards than had been anticipated. While in the field he also collected linguistic material from the Tunica Indians near Marksville, La. There are supposed to be only three individuals who can still use the old tongue.

Doctor Swanton devoted a large part of his time to continuing preparation of the Handbook of the Southeastern Indians, and a beginning has been made on a bulletin to include the linguistic material of the Coahuiltecan tongues now extinct. The work of copying the tribal map of the Indians of North America has been practically completed.

Dr. Truman Michelson, ethnologist, was at work among the Southern Cheyenne at the beginning of the fiscal year. The object was to restore phonetically some Cheyenne words previously extracted from Petter's Dictionary which were clearly Algonquian in origin. Measurements were taken of some 23 subjects, and a good deal of new ethnological information was obtained. Near the middle of July Doctor Michelson left for Tama, Iowa, to obtain some additional material on Fox ceremonials. Early in August he left Iowa and went among the Northern Cheyenne to restore the list of Cheyenne words mentioned above according to Northern Cheyenne phonetics. Incidentally a really representative group of Northern Cheyenne were measured. A statistical study has shown that the vault of the skull is decidedly low as compared with that of most Algonquian peoples and rather resembles the skull of the Dakota Sioux. In June, 1932, Doctor Michelson again left for the field. He succeeded in gaining some important sociological data on the Kiowa and obtained some new facts on Cheyenne linguistics, sociology, and mythology.

John P. Harrington, ethnologist, made a thorough study of the Indians of Monterey and San Benito Counties, in central California, and investigated the little known Chingichngich culture of the coast of southern California. Working with the oldest survivors of the Costanoan and Esselen speaking Indians of Monterey and San Benito Counties, Mr. Harrington found it possible by fully utilizing all the early records and vocabularies to illuminate the former life

of these people and to define it as clearly as that of some of the better known western groups. The study demonstrated that this culture indicates a key region for central California ethnology, since it proved to be a connecting link between the cultures of northern and southern California. These Indians lived on a wooded mountainous coast, the northern breaking down of the great Santa Lucia Range, in a broad interior valley, known in early times as *la canada del rio de Monterey* and now as the Salinas Valley, and in the hilly region between coast and valley, and east of the valley. The region was rich in fish, shellfish, game, and in vegetable foods and medicinal herbs. Labor was roughly divided between men and women, the men tending to the animal food and the women to the vegetable. The houses were built of poles and thatch, shaped like a half orange, with smoke hole at the top, and slightly sunk in the ground. The people lived in villages and were governed by the village chief and elders. One or more sweathouses were to be found at each village. The people hardened themselves to going the year around with little or no clothing in the mild climate, and the dense morning fogs did not keep them from rising at daylight and taking the daily morning plunge. A bride was taken to live at the house of her husband's people or to a new house built near there. A captain, or even an ordinary man, would sometimes have two or more wives, but monogamy was the rule. One of the important discoveries is that the people had clans.

From July 1 to September 22, 1931, Dr. F. H. H. Roberts, jr., archeologist, continued excavations at the site $3\frac{1}{2}$ miles south of Allantown, Ariz., where work was started in May of the previous fiscal year. The Laboratory of Anthropology of Santa Fe, N. Mex., cooperated in the project through July and August. The summer's work resulted in the excavation of the subterranean portions of 14 structures. The excavations showed that several of the dwellings had been destroyed by fire. The charred remnants of timbers lying on the floors demonstrated clearly the method of roof construction. The details were so clearly shown in one of the houses that it was restored so that visitors to the site might see what dwellings of that type were like. Two other pits were covered with shed roofs so that they will be preserved for a long time to come. The Douglass method of determination gave dates ranging from 814 to 916 A. D. On February 1 Doctor Roberts left Washington for Yucatan, having been detailed to the Carnegie Institution of Washington in the capacity of consulting archeologist. He spent 10 days at Chichen Itza, during which time he gained much first-hand information concerning the character of the ancient Mayan civilizations, and also visited Uxmal, the pyramids at San Juan de Teotihuacan, and sev-

eral other important archeological sites in the vicinity of Mexico City. While in Mexico City he had the opportunity of seeing and examining the various objects found at Monte Alban by the expedition under Prof. A. Caso. Doctor Roberts left Washington on May 21 to resume his researches at the site south of Allantown, Ariz. Excavations were commenced on June 2, and by June 30 the remains of two additional pit houses had been cleared of the accumulated debris, and the remains of seven slab-lined storage cists uncovered. In addition 15 burials belonging to the habitation group were found. One of the pit structures uncovered had been destroyed by fire, and the charred timbers furnished one of the earliest building dates thus far obtained in the Southwest, namely, 797 A. D.

On July 10, 1931, Dr. W. D. Strong entered upon his duties as ethnologist in the bureau. Early in August he left for a reconnaissance trip through central and western Nebraska, central South Dakota, and western North Dakota. Evidence of a prehistoric culture believed to pertain to the early Pawnee was followed up the Republican River and west as far as Scottsbluff. Here a very important stratified site on Signal Butte was investigated, and after arranging for complete excavation the next summer, Doctor Strong continued the survey trip up the Missouri River. Many large prehistoric villages of the sedentary tribes in this region were visited and their locations and characteristics noted for future investigation. The survey ended with a visit to the living Arikara Indians on the Fort Berthold Reservation in North Dakota. Many good informants were visited and preliminary ethnological work on the life and customs of this very important agricultural people was commenced. During the autumn and winter of 1931-32 the text and illustrations of a manuscript entitled "An Introduction to Nebraska Archeology" were prepared.

On May 25, 1932, Doctor Strong left for Lincoln, Nebr., and on June 15 excavations were commenced in the stratified deposits on the top of Signal Butte. Large collections of specimens from all three levels were secured, especially from the lowest level of occupation, which was very thick and gave evidence of great antiquity. Marked cultural differences between the three levels were apparent during the excavation work. Burials, both complete and partial, were found in the upper level, but no burials were encountered in the lowest level, though fragments of human bone were found. It is already certain that the unusual case of stratigraphy present on the summit of Signal Butte will, when the material has been studied in detail, yield clear evidence of an extensive sequence of cultural and artifact types for the high plains region of central North America.

J. N. B. Hewitt, ethnologist, completed the revision and the editing of the manuscript journal of the Swiss artist, Rudolph Friederich Kurz, for publication by the bureau. He also made an intensive study of the internal organic structure of the Iroquois and the Huron (Wyandot) clan, which was a most important unit of social and political organization. This investigation revealed some hitherto unnoted and disregarded organic features of clan structure. The results of this study were submitted for publication. In addition he continued his work of coordinating the variant versions of traditional and ceremonial matters recorded in native text in the Mohawk, the Cayuga, and the Onondaga vernaculars. In addition to the four myths of the Wind Gods mentioned in the previous report, five others of this series of texts were completed, as was also the paper dealing with the decipherment of an interesting series of mnemonic pictographs. Mr. Hewitt represents the Smithsonian Institution on the United States Geographic Board, and as a member of its executive committee has much active research work to do.

On May 11, 1932, Mr. Hewitt resumed his ethnological researches among the Iroquois members of the former Six Nations of Indians on the Grand River Grant, near Brantford, Ontario, Canada. His investigations began with a study of the permanency and the remaining cohesive power of the clan among these people, and of its influence, if any, on the social and political activities of these Indians to-day. He found what had been superficially apparent for some time, namely, that the clan structure and authority had become completely forgotten, and so maintained no effective guidance in social and political affairs. David Thomas, a former chief of the Cayuga and an intelligent man, of the Grand River Reservation, dictated a number of traditional and interpretative Cayuga texts dealing with certain phases of the ancient league rituals. John Buck, sr., a former Tutelo chief, supplied further information relating to the Wind Gods, and he also gave much assistance in interpreting league texts already recorded by Mr. Hewitt.

Winslow M. Walker, associate anthropologist, was in the field at the beginning of the year, exploring certain caves in the Ozark region of north central Arkansas. A large cavern at Cedar Grove yielded the burials of 12 individuals and a considerable number of artifacts and articles of rough stone, chipped flint, bone, shell, and crude undecorated potsherds heavily shell-tempered. The resemblance to the culture of the Ozark Bluff Dwellers described by M. R. Harrington is very marked. The skeletal remains indicate a long-headed people of moderate stature, the so-called "pre-Algonkin type." Three localities were found where there were petrographs—

both carved and painted symbols and figures—but the designs at each of these sites were different and distinctive, and they could not be correlated with any of the Bluff Dweller caves.

In the middle of July Mr. Walker went to Louisiana, where for a month explorations of mound and village sites in various parts of northern Louisiana were undertaken, principally in the Red River and Mississippi Valleys. At Natchitoches, on Red River, while preparations were going on for the construction of some ponds for a new Government fish hatchery, an ancient Indian burial ground was discovered. Mr. Walker arrived in time to save some of the skeletal material and fragments of a beautiful highly decorated and polished pottery. The period from January to June was spent in the compiling of an index of all archeological sites so far reported from the region of the lower Mississippi Valley, with maps showing the location of these sites in the States of Louisiana and Arkansas.

From the study of the material found at Natchitoches a paper has been prepared for publication entitled "Discovery of a Caddo Site at Natchitoches, Louisiana." The results of this study seem to justify the conclusion that this was the burial ground of the tribe of the Natchitoches, a branch of the Caddo, found inhabiting this location by Henri de Tonti in 1690. The beautiful polished and engraved pottery is very similar to that made by the Ouachita Indians living along the river of that name in Louisiana and Arkansas.

SPECIAL RESEARCHES

The study of Indian music was continued during the past year by Miss Frances Densmore, a collaborator of the bureau. The three outstanding results of the year's work are a study of the Peyote cult and its songs among the Winnebago Indians, an intensive study of the songs and customs of the Seminole in Florida, and the completion for publication of a manuscript entitled "Nootka and Quileute Music." In addition, numerous Pueblo songs recorded in 1930 have been transcribed and other Pueblo songs recorded. Eight manuscripts and the transcriptions of 109 songs have been submitted, together with the phonographic records and complete analyses of the songs.

Field trips were made to Wisconsin Dells in August and September, 1931. The first trip was devoted to the Pueblo work, the recording of Winnebago dance songs, and a continuance of the general study of the Winnebago. Following this a visit was made to a basket makers' camp near Holmen, Wis., where the ceremonial songs of the John Rave branch of the Peyote organization were recorded by William Thunder, a leader in the ceremony. On the second trip to Wisconsin Dells the ceremonial songs of the Jesse Clay branch

of the organization were recorded by James Yellowbank, who is a leader in that branch. In September, 1931, and in June, 1932, the study of peyote was continued with Winnebago Indians.

On November 6, 1931, Miss Densmore arrived in Miami, Fla., to resume a study of the Seminole Indians begun in January. During the early part of her stay the work was conducted in the Seminole villages at Musa Isle and Dania and in three camps on the Tamiami Trail between Miami and Everglades. Sixty-five songs were recorded by Panther (known as Josie Billie), a leader in the Big Cypress band of the tribe. He is a medicine man in regular practice, and his work was sometimes interrupted by his attendance upon the sick.

Early in February Miss Densmore went to Fort Myers and made a trip to remote villages in the Everglades under the guidance of Stanley Hanson of that city. Then she went to the region west of Lake Okeechobee and recorded 125 songs at Brighton from Billie Stuart, a leader of singers in the Cow Creek group of Seminoles. Returning to Miami, work was resumed at Musa Isle. Additional songs were recorded by Panther, and an important tradition was related by Billie Motlo, one of the few remaining old men of the tribe.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the bureau has continued under the direction of the editor, Stanley Searles. During the year seven bulletins were issued, as follows:

- Bulletin 94. Tobacco among the Karuk Indians of California (Harrington). xxxvi+284 pp., 36 pls., 2 figs.
- Bulletin 98. Tales of the Cochiti Indians (Benedict). x+256 pp.
- Bulletin 102. Menominee music (Densmore). xxii+230 pp., 27 pls., 3 figs.
- Bulletin 103. Source material for the social and ceremonial life of the Choctaw Indians (Swanton). vii+282 pp., 6 pls., 1 fig.
- Bulletin 104. A survey of prehistoric sites in the region of Flagstaff, Arizona (Colton). vii+69 pp., 10 pls., 1 fig.
- Bulletin 105. Notes on the Fox Wāpanōwiweni (Michelson). v+195 pp. 1 fig.
- Bulletin 107. Karuk Indian myths (Harrington). v+34 pp.

LIBRARY

The library of the Bureau of American Ethnology is made up largely of works on the archeology, history, customs, languages, and general culture of the early American peoples, notably the North American Indian. The library has 30,071 volumes and 16,867 pamphlets, together with thousands of unbound periodicals and numerous photographs, manuscripts, and Indian vocabularies. The additions during the year were 400 volumes and 150 pamphlets. The number of periodicals entered was 3,400; of cards prepared for the

catalogue, 5,004; of volumes bound, 200; and of loans made, 2,156. The reference service of the library was unusually large, both to Smithsonian scientists and to students and others outside the Institution.

COLLECTIONS

Accession No.

115902. Collection of archeological material collected by M. W. Stirling at various sites in Alabama and Florida in 1931. (148 specimens.)
114568. Archeological and skeletal material collected for the Bureau of American Ethnology by F. M. Setzler from various sites in Texas in 1931. (69 specimens.)
115562. Archeological and ethnological objects collected for the Bureau of American Ethnology by Neil M. Judd on the San Carlos Indian Reservation, Gila County, Ariz. (49 specimens.)
115827. Specimens of shell from Horrs Island, Fla., collected by M. W. Stirling in 1931. (3 specimens.)
117184. Archeological material collected in 1931 by W. M. Walker from caves and rock shelters in the Ozark region of north central Arkansas, occupying portions of Searcy and Marion Counties. (23 specimens.)

MISCELLANEOUS

During the course of the year information was furnished by members of the bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the bureau were identified and data on them furnished for their owners.

Personnel.—Dr. William Duncan Strong was appointed as ethnologist on the staff of the bureau on July 10, 1931. Miss Marion Illig was appointed as junior stenographer on September 1, 1931. De Lancey Gill was retired as illustrator on June 30, 1932, by operation of the economy bill.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,

Secretary, Smithsonian Institution.





Fiftieth Annual Report

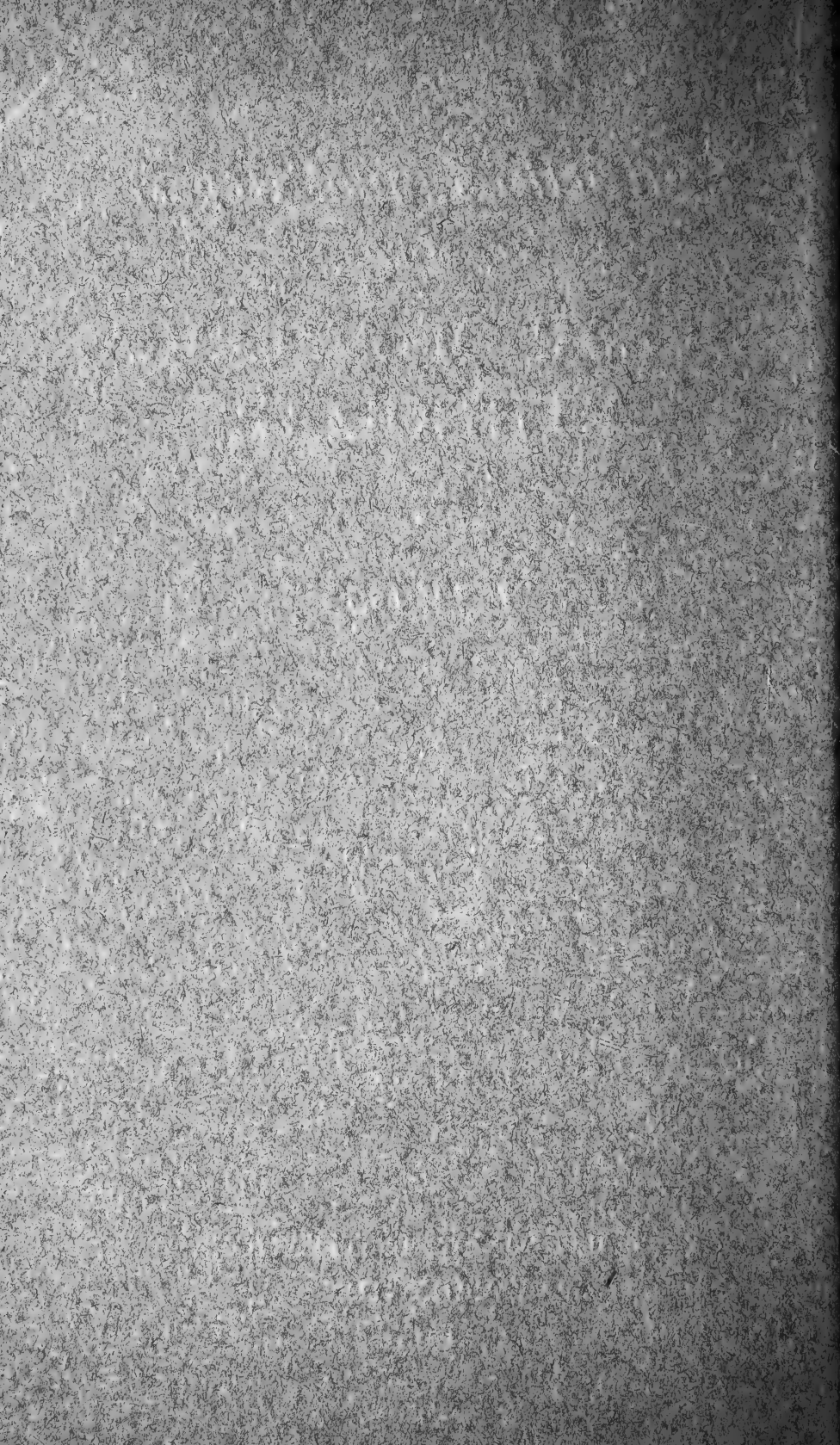
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BUREAU OF AMERICAN
ETHNOLOGY

1932-1933



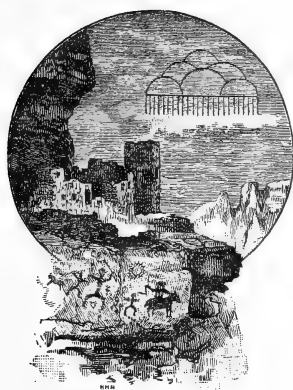
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FIFTIETH
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TO THE SECRETARY OF THE
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UNITED STATES
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WASHINGTON : 1933



FIFTIETH ANNUAL REPORT

OF THE

BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1933, conducted in accordance with the act of Congress approved June 30, 1932. The act referred to contains the following item:

American ethnology: For continuing ethnological researches among the American Indians and the natives of Hawaii, the excavation and preservation of archæologic remains under the direction of the Smithsonian Institution, including necessary employees, the preparation of manuscripts, drawings, and illustrations, the purchase of books and periodicals, and traveling expenses, \$66,640.

SYSTEMATIC RESEARCHES

M. W. Stirling, chief, devoted most of his time during the year to office routine and to the preparation of manuscript accumulated from past researches. Several sections of his report on the ethnology of the Jivaro Indians of eastern Ecuador were completed, and considerable progress was made in the preparation of a manuscript describing and illustrating the important finds made by F. H. Cushing, former ethnologist of the Bureau, during excavations in a muck deposit at Key Marco, Fla. A set of excellent photographs illustrating this work was discovered in the Bureau archives, where they had been deposited, unindexed, by Mr. Cushing, whose death took place shortly after the completion of his Florida field work.

Mr. Stirling also gathered a large quantity of unpublished material relating to the career of Sitting Bull, including a new and heretofore unknown hieroglyphic autobiography drawn by Sitting Bull himself, a more important specimen than the famous copy of a Sitting Bull autobiography in the Bureau archives made by Four Horns.

Dr. John R. Swanton, ethnologist, devoted the greater part of his time, beyond that used in answering correspondents, to an extensive paper on the ethnology of the southeastern Indians, mentioned in previous reports. A great volume of material has been added. Progress has also been made in the preparation of a bulletin to include all the linguistic material rescued from the now extinct Coahuiltecan and Karankawan dialects.

Dr. Swanton took part in the "Conference on Southern Pre-History" held at Birmingham, Ala., December 18-20, under the auspices of the Division of Anthropology and Psychology of the

National Research Council, through its committee on State archeological surveys, of which Dr. Carl E. Guthe is chairman. To this he contributed two papers, one entitled "The Southeastern Indians of History" and the other "The Relation of the Southeast to General Culture Problems of American Pre-History." He presided as president of the American Anthropological Association over the sessions of that body at its meeting at Atlantic City, N.J., December 28-30.

Bulletin 108, entitled "A Dictionary of the Atakapa Language", consisting largely of material collected by the late Albert S. Gatschet but systematized and edited by Dr. Swanton, appeared during the year.

Dr. Truman Michelson, ethnologist, was at work among the Cheyenne and Arapaho at the beginning of the year. Among the Cheyenne the prime object was to get an insight into their mythology, though their sociology was not neglected. Among the Arapaho, work was linguistic and sociological. He secured the personal narrative of an aged southern Arapaho woman. An analysis shows clearly that this is almost entirely institutional, closely following the tribal pattern. With but few changes it might be the autobiography of any aged Arapaho woman. On July 22 Dr. Michelson left for Tama, Iowa, to renew researches among the Foxes in that vicinity. New data on ceremonials were obtained and some older data verified. He left Tama on August 8, stopping at Chicago to consult with some anthropologists of that city and to inspect certain collections.

While in the office Dr. Michelson prepared for publication by the Bureau a manuscript entitled "When the War Chiefs Worship the Wolf", which is to be combined with a paper entitled "Fox Miscellany", which was prepared last year. Dr. Michelson worked out a long series of phonetic shifts in Arapaho, which will ultimately be published. He succeeded in finding Algonquian etymologies for a host of Blackfoot words and stems; which contradicts the usual assumption that Blackfoot vocabulary must be largely from outside sources. A grant was made to Dr. Michelson by the National Research Council whereby he could employ a technical assistant to bring the late Dr. Jones' Fox and Ojibwa material into shape for publication, and Mrs. Margaret Wepley, a former student of Dr. Michelson's, was selected for this purpose. At the close of the fiscal year all the Fox ethnological material was virtually ready for publication.

J. P. Harrington, ethnologist, spent the year in an endeavor to rescue before it is too late what can still be learned of the culture of the Indians of southern California and adjacent regions to the north and east. Attention in this field naturally centered about the classic work of Boscana published by Alfred Robinson in 1846, as Boscana's work has never been thoroughly checked with modern Indians.

Father St. John O'Sullivan of San Juan Mission gave invaluable collaboration in a renewed study of the San Juan Indians.

The Fred H. Bixby ranch near Long Beach was identified as the birthplace of the Indian prophet Chinigchinich. All obscure passages in Boscana were completely cleared up as a result of this work and much new ethnological data was secured.

Scarcely a source of information that could be thought of was left untried. Information was gathered by correspondence from universities and professors in this country, Spain, Italy and Mexico. The manuscript, comprising some 800 pages, was completed for publication, and should be a standard source book for the ethnology of southern California Indians. Thorough linguistic, ethnobotanical, and historical studies were made to support the Boscana.

The beginning of the year found Dr. F. H. H. Roberts, Jr., archeologist, in camp $3\frac{1}{2}$ miles south of Allantown, Ariz., engaged in a series of archeological excavations which had been started in June. The work as a whole was a continuation of a program of researches begun during the summer of 1931. In July 1932 a semisubterranean structure of the Pueblo I pit-dwelling type was cleared of accumulated debris. Eight granaries and two surface shelters accompanying the pit remains were also uncovered. This group contributed valuable data on the habits and customs of the people of that horizon. Specimens of the arts and industries obtained from the structures aided materially in determining the culture pattern.

Investigations were shifted to a Pueblo II site late in July, and a 6-room unit house with its adjacent ceremonial chamber or kiva was excavated. Digging was also carried on in the nearby refuse mound. Twenty burials were found and interesting information obtained concerning mortuary customs. A representative collection of artifacts was also made at this location. The investigations demonstrated that the typical unit house was present in a region where it hitherto had not been supposed to exist.

Dr. Roberts returned to Washington in September and spent the winter preparing plans, diagrams, and a report on the summer's activities.

Dr. Roberts left Washington at the end of May 1933 for Arizona. En route he stopped at Norton, Kans., to inspect purported Indian mounds. The formations proved to be entirely natural.

In Arizona investigations were resumed at the site south of Allantown. The work consisted largely of checking notes made in previous seasons and making preparations to abandon the site, the latter move being necessitated by the lack of funds required to carry the researches to a proper conclusion.

From July 1 to 16, 1932, Dr. W. D. Strong, anthropologist, continued his stratigraphic researches at Signal Butte in western

Nebraska. From July 16 to September 2 archeological research was carried on in historic and prehistoric Arikara and Mandan sites in South Dakota. Some ethnological work was also accomplished among the former people. From September 16, 1932, to January 28, 1933, he was in Washington, where the collections were unpacked, classified, and the writing of reports commenced.

On January 28, 1933, Dr. Strong left Washington for 6 months' anthropological research in northeastern Honduras. This included a 6 weeks' expedition up the Patuca River, where archeological sites were mapped, some excavating was carried on, and the Sumu and Miskito Indians were briefly studied. An accident occurring on this trip caused a delay of several weeks at Puerto Castilla for hospital treatment. From April 24 to May 24 an archeological survey of the Bay Islands was accomplished. This yielded unusually valuable results. On June 4 the party made a muleback trip across the mountains to the interior town of Juticalpa. From here they flew to Tegucigalpa to interview officials. On July 1 the party was returning by mule to the coast. Many new archeological sites, some of very large size, were discovered on this trip. Valuable contacts were also made with the Paya Indians in the interior.

Winslow M. Walker, associate anthropologist, resumed investigations in the mound area of the Mississippi Valley from the middle of August to the middle of November 1932. Excavations made on the site of the former great mound at Jonesville, La., revealed evidences of more than one period of occupancy, the earliest containing pottery of a type similar to that found in the Hopewell mounds of Ohio. Other interesting features discovered include portions of a log palisade, a kind of stairway of logs, a lone human skull, minus the lower jaw, lying in the mud beneath the lowest step, and great sheets of cane laid down with careful regularity throughout the mound. Other mounds in this group, formerly known as the Troyville group, were examined, and the conclusion was reached that they probably stand on the site of the great Indian town of Anilco visited by De Soto in 1542. A report on this work has been prepared entitled "The Troyville Mounds, Catahoula Parish, La." Mr. Walker also spent some time while in Arkansas endeavoring to locate the sites of the Quapaw villages shown on the Ross map of 1765, but changes in the river course have obliterated all trace of them. A start has also been made on a card catalog listing the locations of early historic Indian villages, to serve as a guide for further profitable archeological work in the Southeast.

J. N. B. Hewitt, ethnologist, devoted considerable time to a study of the probable date of the formation and organization of the League of the Five Iroquois Tribes. This required especial research in the early writings of the first explorers in the valley of the St. Lawrence

River. This study confirmed Mr. Hewitt's earlier estimate that the approximate period was 1559-70.

A study of the Jesuit Relations shows that the organic units of the federal structure of the historical League of the Five Iroquois Tribes differed from those of the Huron in nonessentials only. Mr. Hewitt also established the fact that the Iroquois had not been expelled from the north by Algonquins in prehistoric times.

A new translation with interpretative notes of the Fifth Ritual of the Federal Ceremony of Condolence and Installation, "The Requickening Address", consisting of 8,385 native terms, was made.

Mr. Hewitt represented the Smithsonian Institution on the United States Geographic Board, as a member of its executive committee.

As custodian of manuscripts, Mr. Hewitt has been assisted by Miss Mae Tucker, who has also continued the task of cataloging the thousands of negatives and photographs accumulated since the establishment of the Bureau.

SPECIAL RESEARCHES

The study of Indian music was continued during the past year by Miss Frances Densmore, a collaborator of the Bureau. Seven manuscripts were submitted, with the following titles: "Winnebago, Iroquois, Pueblo, and British Columbian Songs"; "Seminole Songs Connected with Legends and Dances"; "Dance Songs of the Seminole Indians"; "Choctaw Songs of Dances and Games"; "Songs of the Alibamu Indians"; "Alibamu Songs of the Buffalo and Other Dances"; and "Chitimacha, Choctaw, and Seminole Music, with a Comparative Survey of Indian Music in the Gulf States." Seven manuscripts previously submitted on the music of British Columbian Indians have been combined and retyped.

An extended field trip in the Gulf States was begun in December 1932 and concluded in February 1933. The first tribe visited was the Alibamu in Polk County, Tex., more than 60 songs being recorded. The Chitimacha at Charenton, La., were next studied. About 80 songs were recorded from the Choctaw near Philadelphia, Miss. The Seminole in Florida were revisited and about 70 songs were recorded.

EDITORIAL WORK AND PUBLICATIONS

The editing of the publications of the Bureau was continued through the year by Stanley Searles, editor. The status of the publications is presented in the following summary.

PUBLICATIONS ISSUED

Forty-ninth Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution, 1931-32. vi+8 pp.

Bulletin 99. The Swimmer manuscript: Cherokee sacred formulas and medicinal prescriptions (Mooney and Olbrechts). xvii+319 pp., 13 pls.

Bulletin 106. Ethnographical survey of the Miskito and Sumu Indians of Honduras and Nicaragua (Conzemius). vii+191 pp., 10 pls., 1 fig.

Bulletin 108. A dictionary of the Atakapa language, accompanied by text material (Gatschet and Swanton). v+181 pp., 1 pl.

Bulletin 109. A dictionary of the Osage language (La Flesche). v+406 pp.

Bulletin 110. Yuman and Yaqui music (Densmore). xviii+216 pp., 31 pls., 7 figs.

Bulletin 111. The village of the great kivas on the Zuñi Reservation, New Mexico (Roberts). ix+197 pp., 64 pls., 34 figs.

List of publications of the Bureau of American Ethnology, with index to authors and titles. iv+55 pp.

PUBLICATION IN PRESS

Forty-eighth Annual Report. General index, annual reports of the Bureau of American Ethnology, vols. 1-48 (Bonnerjea). v+1220 pp.

The number of publications distributed was 29,889.

LIBRARY

The reference library has continued under the care of Miss Ella Leary, librarian. The library consists of 30,391 volumes, about 16,993 pamphlets, and several thousand unbound periodicals. During the year 320 books were accessioned. There were also received 126 pamphlets and 3,440 serials, chiefly the publications of learned societies. Books loaned during the year numbered 960 volumes. In the work of cataloging 4,840 cards were added to the catalog. A considerable amount of reference work was done in the usual course of the library's service to investigators and students, both those in the Smithsonian Institution and others.

ILLUSTRATIONS

Following is a summary of work accomplished by E. G. Cassedy, illustrator for the Bureau.

Maps (colored)-----	9
Tracings-----	12
Mechanical drawing-----	1
Preliminary drawings-----	50
Line drawings-----	54
Sketches (color)-----	6
Photographs retouched-----	33

COLLECTIONS

Accession
number

114181. Archeological material from various sites between the Rio Salado and the Rio Dulce, known as Mesapotonua Santiaguena, Argentine, and presented to the Bureau by E. R. Wagner, Museo Arcaico Provincial, Santiago del Estero, Argentine.
120252. Collection of human skeletal material found by Dr. F. H. H. Roberts, Jr., while conducting archeological researches for the Bureau at a site on the Zuñi Indian Reservation, N. Mex., in the summer of 1930.
121548. Two boxes of mammalian and bird remains from a stratified archeological site at Signal Butte, Nebr., collected during the summer of 1932 by Dr. W. D. Strong.

Accession
number

121824. Seventeen daguerreotypes, thirteen ambrotypes, and one tintype of Indian subjects which had accumulated in DeLancey Gill's office.
122561. One lot of turkey bones (*Meleagris gallapavo*), nymph of bug of family Reduviidae, and two fragments of swamp cane collected by W. M. Walker from the Jonesville mound, La.
122696. Decorated potsherd from Weeden Island mound, Tampa Bay., Fla., presented to the Bureau by D. I. Bushnell, Jr.
122697. Coiled pottery jar and several decorated potsherds from Keams Canyon, Ariz., transferred to the Bureau by the Office of Indian Affairs.
122701. Pottery bowl and pottery tobacco pipe made by the Tule Indians of the village of Mulatupa on San Blas coast of Panama, sent to the Bureau by A. G. Cleveland.
122704. Collection of ethnological specimens from the Jivaro Indians of the Upano, Santiago, Chinganasa and Alto Maranon Rivers of eastern Ecuador; archeological and ethnological objects from the Chama Indians of the Ucayali River in Peru; two copper and two stone axes from Mendez, Ecuador, and one stone ax from the Upper Yaupe River, Ecuador; and a collection of land snail shells from the Upper Paute River in the vicinity of Mendez, Ecuador, collected by M. W. Stirling in 1932.
122705. Slab of shell-tempered pottery used as part of a grave lining from an Indian grave near Nashville, Tenn., sent to the Bureau by P. E. Cox.
122979. Quirt and beaded bag collected by George R. Cassedy at Pawnee Junction, Nebr., in 1869 from Buckskin Charlie (a Sioux) and presented to the Bureau by E. G. Cassedy.
124507. Six projectile points from Yuma County, Colo., sent to the Bureau by Everett Harte of Wray, Colo.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—E. G. Cassedy was appointed illustrator on November 25, 1932.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,
Secretary, Smithsonian Institution.





Fifty-first Annual Report

of the

BUREAU OF AMERICAN
ETHNOLOGY

1933-1934



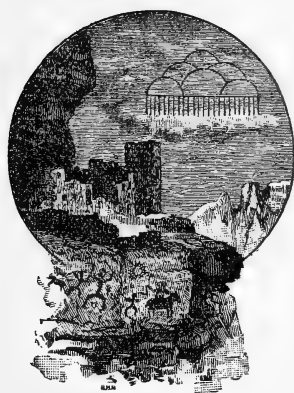
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WASHINGTON
D. C.



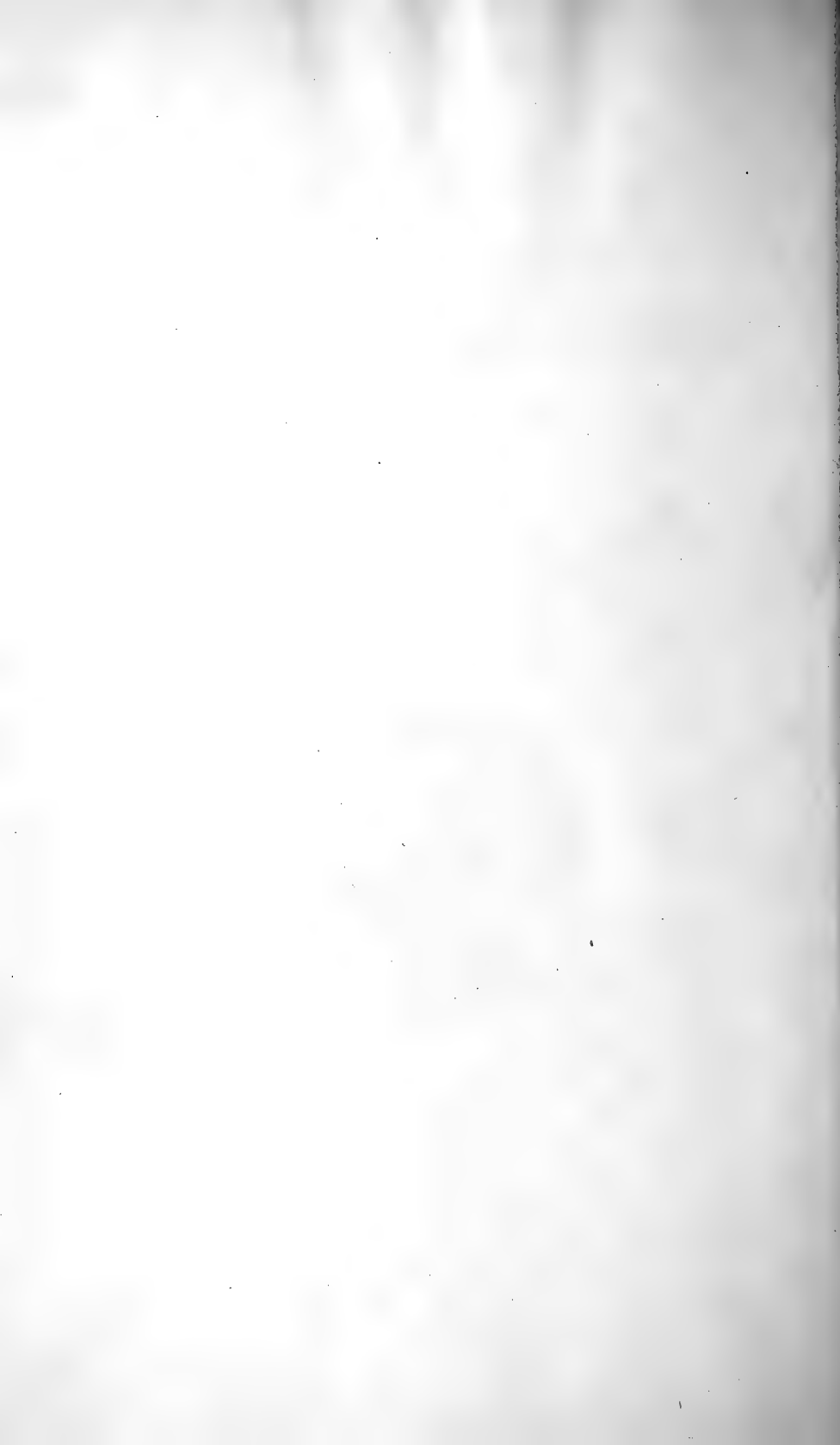
FIFTY-FIRST
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1933-1934



UNITED STATES
GOVERNMENT PRINTING OFFICE.
WASHINGTON : 1935



FIFTY-FIRST ANNUAL REPORT

OF THE

BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1934, conducted in accordance with the act of Congress approved June 16, 1933. The act referred to contains the following item:

American ethnology: For continuing ethnological researches among the American Indians and the natives of Hawaii, the excavation and preservation of archeologic remains under the direction of the Smithsonian Institution, including necessary employees, the preparation of manuscripts, drawings, and illustrations, the purchase of books and periodicals, and traveling expenses, \$50,000.00.

SYSTEMATIC RESEARCHES

M. W. Stirling, Chief, devoted the early part of the year to office routine and to the preparation of manuscript relating to past researches. When the Civil Works Administration began to expand its relief program, opportunity was taken to give work to a number of especially equipped unemployed in the translation of manuscript and rare printed material in foreign languages and to the typing and copying of a considerable quantity of rare manuscript material in the archives of the Bureau which has been in danger of disintegrating because of age.

On December 11, 1933, Mr. Stirling left Washington for Florida to supervise archeological projects which he had proposed in connection with the Federal Civil Works Administration relief program. After conference with Civil Works Administration officials at Tallahassee and Jacksonville, work was conducted in the excavation of mounds and habitation sites in the vicinity of the south fork of the Little Manatee River near Bradenton, Fla., and on Perico Island near the mouth of the Manatee River. A sand burial mound was excavated at Englewood in the southern part of Sarasota County. On the eastern coast of Florida, work was conducted on Canaveral Island,

at Miami Beach, and at Ormond Beach. In the central part of the State a large site near Belle Glade in the vicinity of Lake Okeechobee was excavated. Because of the amount of labor which it was possible to utilize, much information was obtained which will help to clear up the problems of Southeastern archeology.

During the same period, Mr. Stirling took the opportunity of overseeing the work conducted under the auspices of the Bureau of Ethnology at Macon, Ga., where a large and important mound group was being excavated with the cooperation of the Macon Historical Society. On May 5, Mr. Stirling returned to Washington where he worked on the preparation of the collections obtained during this field work and on the preparation of reports on the different excavations.

Upon the death of the late Gen. Hugh L. Scott, his valuable material on the sign language of the American Indians was added to the Bureau archives. Richard Sanderville, Blackfoot Indian, who had been one of General Scott's principal informants, was brought to Washington in order to go over this material and to supplement it in places which appeared lacking. Opportunity was also taken to make additional motion pictures and a general photographic record of the sign language with Mr. Sanderville as model.

During the earlier part of the year Dr. John R. Swanton, ethnologist, completed the bulletin on the languages of certain Texas tribes, of which mention was made in his last report. This includes all of the linguistic material known to be in existence, both published and unpublished, from the Coahuiltecan, Karankawan, and Tamaulipecan stocks, i. e., all of the Indian tongues of Texas west and south of the Atakapa and Tonkawa, and extending as far into Mexico as the boundaries of the Huastec and Uto-Aztecan tribes.

The remainder of his office work, aside from correspondence, has been devoted mainly to the handbook of Southeastern Indians, mentioned in previous reports. The present draft of this work contains about 1,200 typewritten pages.

At the end of February Dr. Swanton went to Macon, Ga., at the invitation of the Society for Georgia Archaeology, to attend its first meeting and take part in its activities as indicated elsewhere. He remained at Macon for about 3 weeks, visiting archeological sites both in the immediate neighborhood and in other parts of Georgia and making some attempts to locate the route pursued by De Soto in crossing the State in 1540. Dr. Swanton thinks there is little doubt that the crossing point on the Oconee has been identified with the old trail crossing at Carr Shoals, a few miles above Dublin.

Dr. Truman Michelson, ethnologist, devoted the bulk of his time to preparing a paper entitled "The Linguistic Position of Nāwaθinānānaⁿ." This consisted of going over Kroeber's published

material and establishing the phonetic shifts of the language. It also meant codifying in final form a number of Cheyenne shifts which he had partially worked out in previous years. It also involved clarifying some shifts in Arapaho and Atsina. The special novelty consists in showing how at least certain Algonquian languages became divergent simply by the operation of complex and far-reaching phonetic shifts. The manuscript was completed before the end of the fiscal year. Toward the close of the fiscal year Dr. Michelson was engaged in working out the phonetic shifts in Natick, an extinct Algonquian language, on the basis of Trumbull's Dictionary.

During the first 6 months of the fiscal year, Dr. John P. Harrington, ethnologist, continued his field studies among the Mission Indians of California, obtaining a rather exhaustive set of notes to accompany the publication of the Boscana manuscript recently discovered by him. It is the long-lost original of the only complete report ever written by a Franciscan missionary on the ethnology of the California Indians. It was written by the Rev. Jeronimo Boscana at San Juan Capistrano Mission on the coast of southern California in 1822, and is a delightfully variant version of the Boscana account entitled "Chinigchinich", published in English translation by Alfred Robinson as an appendix to his *Life in California* in 1846. The task of taking this Spanish original to the oldest surviving Indians and eliciting their comment on its many detailed statements proved fascinating and often went far beyond the scope of the original.

The following 5 months were spent in Washington, D. C., in elaboration of field material. A very literal and careful translation of the newly found manuscript was made, and this translation was published in the *Smithsonian Miscellaneous Collections*, Vol. 92, No. 4. Copy of the Spanish text has been prepared, and this with the notes, which exceed several times the bulk of the manuscript, will constitute a later publication by the Smithsonian Institution.

Leaving Washington for California early in June, Dr. Harrington spent 17 days with an old Indian informant who contributed much to the Boscana notes and gave considerable other important information. The end of the fiscal year found him still in the field.

Dr. F. H. H. Roberts, Jr., archeologist, was on leave of absence from the Bureau during the months of July and August 1933. During this time he excavated the remains of a small village of the Pueblo I type. The investigations were carried on 3½ miles south of Allantown, Ariz., on a portion of the site where researches were conducted in the field seasons of 1931, 1932. The 1933 work was done under the auspices of the Laboratory of Anthropology, Santa Fe, N. Mex., as a part of its program of field training for graduate students. The Laboratory and the Bureau cooperated in the investigations of 1931 and the Bureau sponsored those of 1932. Despite its small size, the

village excavated in 1933 contributed valuable data on developments occurring within a single phase in the history of the pre-Spanish Pueblo Indians, and this knowledge is being incorporated in the large report on the results of the previous years' investigations at the site.

In the 2 months allotted to the work, two unit dwellings—one consisting of 5 rooms and a subterranean ceremonial chamber, the other containing 7 rooms and a ceremonial chamber—a third underground structure, and several courts were excavated. The refuse mounds were trenched and 24 burials with accompanying mortuary offerings were uncovered. A few timbers used as roof beams in the structures were sufficiently preserved to make possible their dating by means of dendrochronology. These show that the village was built and occupied between 800 and 850 A. D. Specimens collected include pottery; stone tools, bone implements and ornaments; and some tiny beads made from shells, both red and white in color, which make a string 37 feet 3½ inches in length, one of the longest ever found in the Southwest.

The autumn months were spent in office researches and routine. Drawings were made to illustrate the report on the Arizona work. Information was furnished in response to inquiries. Manuscripts were written detailing various problems in southwestern archeology and explaining the results of the Bureau's activities in that field.

Dr. Roberts left Washington December 16, 1933, for Pittsburg Landing, Tenn., where he began work December 21, on a group of mounds located on the old battlefield in Shiloh National Military Park. The project was one of many sponsored by the C. W. A. and provided for an extensive investigation. The work continued until March 30, 1934. The site is located on a high bluff above the west bank of the Tennessee River and lies between two deep ravines through which flow tributary branches of the main stream. It consists of 7 large mounds, 6 domiciliary and 1 burial, and numerous low elevations which mark the places where dwellings once stood. To the west of the area of occupation is an embankment, extending across the neck of the bluff from one ravine to the other, indicating the former existence of a palisade which protected the community on that side.

Dr. Roberts returned to Washington April 2, and from that time until June 30 worked over material from the Southwest and from Shiloh.

On July 1, 1933, Dr. W. D. Strong, with the Smithsonian expedition in northeastern Honduras, was returning from a muleback and airplane reconnaissance of the interior between Trujillo and Tegucigalpa. The party returned to Trujillo on July 7, having located a considerable number of important and hitherto unknown ruins of Chorotegan type on the overland traverse. Collections were packed and shipped from Puerto Castilla and Dr. Strong reported in Washington July 18.

From that date until December he was occupied in sorting and classifying the Honduras ethnological and archeological collections and commencing a report on the Bay Island reconnaissance. At the same time work was resumed on the report dealing with the stratified archeological horizons excavated on Signal Butte the year before. On December 11, 1933, Dr. Strong left Washington to take charge of archeological excavations at Buena Vista Lake, Kern County, Calif., made possible by a grant from the Federal Civil Works Administration. This work lasted until March 30, 1934. The excavations yielded a mass of specimens and detailed stratigraphic data bearing on the prehistoric human occupation of the great southern valley of California. Winslow M. Walker, who acted as assistant director on the excavations, is preparing a report on this work.

Beside the main excavation work at Buena Vista Lake a series of week-end reconnaissance trips to the Cuyama Valley yielded information on the prehistory of the eastern Chumash. A large burial ground and several village sites were excavated. The prehistoric house type in this border area seems to have been a round or ovoid earth-lodge, with from two to four central posts and no entrance passage. One house of this sort, early historic in time, had a flue up one side, reminiscent of Pueblo house types. At the close of the C. W. A. excavations a small party, under Dr. Strong's direction, made a survey of caves and village sites in the Santa Barbara Mountains west of the Cuyama Valley, and in the Hurricane Deck region of the Sisquoc River. Considerable perishable material from caves, data on a number of village sites, and some interesting pictographs were obtained on this trip. The culture of the eastern Chumash, as revealed by these valley and mountain sites, seems to have been intermediate between that of the coastal Chumash and Island Shoshonean culture and that of the Lake Yokuts. Particularly interesting is the fact that the eastern Chumash cultural remains are particularly close to those recovered from the older of the two kitchen middens excavated on Buena Vista Lake.

Dr. Strong returned to Washington May 1, 1934, and resumed work on the Signal Butte and Bay Island archeological reports.

Winslow M. Walker, associate anthropologist, unable to resume field researches because of the provisions of the Economy Act, instead devoted his time to a systematic examination and classification of the manuscript material collected by the late Dr. Cyrus Thomas relating to Indian mounds. These notes and reports were then refiled according to geographical location in the manuscript division. Some unpublished notes belonging to the late James Mooney were also found, which contained data about archeological sites in various parts of the Cherokee country, and these together with a series of maps prepared by Mr. Mooney in the field were revised with the helpful

assistance of Mrs. Mooney, and made available for the use of any students interested in that section of the Southeast.

About the middle of December 1933 Mr. W. M. Walker left Washington to assist Dr. Strong in the direction of an archeological excavation project near Taft, Calif., made possible by a grant from the Federal Civil Works Administration. The site chosen consisted of two large shellmounds on the shore of Buena Vista Lake, known to the early Spanish explorers as the Yokuts village of Tulamni. These mounds and a portion of the adjoining hill tops were made the object of systematic excavations lasting until the end of March 1934, employing a large number of men taken from the local relief rolls, as well as a number of experienced students from the University of California, and a staff of technical specialists. As a result a large amount of information was obtained about the construction and occupation of the shellmounds, the burial places of some 600 of their former inhabitants, and a collection of about 4,500 specimens illustrating their material culture. Indications are that the inhabitants of the later mound are closely related in culture to the shellmound builders of the San Francisco Bay region, some of whom may have worked their way up the San Joaquin Valley, until they appeared in historic times as the lake tribes of the Southern Yokuts.

Following the closing of the C. W. A. work early in April, Mr. Walker also accompanied Dr. Strong on a 2-weeks' packing trip into the Santa Barbara Mountains mentioned above.

Mr. Walker returned to Washington the latter part of April and has since been engaged in the classification and study of the material collected in preparation for a report on the ancient Yokuts village site of Tulamni.

During the fiscal year ending June 30, 1934, Mr. J. N. B. Hewitt, ethnologist, was engaged in office work. The time was devoted to the revision and literal and free translation of native texts in the Mohawk, the Cayuga, and the Onondaga languages, relating not only to the several institutions of the League of the Iroquois, but also to the traditional accounts of the events leading to its establishment with traditional biographies of the founders and their antagonists, and also those relating to the legendary origin and development of the Wind or Disease Gods and as well those relating to the Plant or Vegetable Gods.

In the writings of many historians of the tribes of the Iroquois, there is a constant occurrence of the terms "elder" brothers, tribes, and nations, and "younger" brothers, tribes, and nations. These phrases have often been employed to show the tribal or racial descent of one Iroquois Tribe or people from another. Mr. Hewitt was able to demonstrate that the eldership or juniorship of tribes or nations

or political brothers among the Iroquois peoples has quite a different signification, these terms being courteous forms of address of an institutional nature, which bars completely the historical inferences or deductions so frequently made from them.

Mr. Hewitt was also enabled as a result of his studies to assign to their proper place and function the seven wampum strings utilized by the Iroquois in the Farewell Chant of the Condolence and Installation Convocation of the League of the Iroquois.

As the representative of the Smithsonian Institution on the United States Geographic Board and as a member of its executive committee Mr. Hewitt attended 10 regular and 4 special meetings of the Board and also 10 regular and 6 special meetings of the executive committee. On April 17, 1934, the President, by Executive order, abolished the United States Geographic Board, transferring its paid personnel of three members to the Interior Department, with the records and other property of the Board.

EDITORIAL WORK AND PUBLICATIONS

The editing of the publications of the Bureau was continued through the year by Stanley Searles, editor. The following publications were issued during the year ended June 30, 1934:

Forty-eighth Annual Report. Accompanying paper: General index, annual reports of the Bureau of American Ethnology, vols. 1-48 (Bonnerjea). v, 1,221 pp.

Fiftieth Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution, 1932-33. 7 pp.

Publications distributed totaled 14,761.

LIBRARY

The reference library has continued under the care of Miss Ella Leary, librarian. The library consists of 30,701 volumes, about 17,095 pamphlets, and several thousand unbound periodicals. During the year 310 books were accessioned, of which 34 were acquired by purchase, the remainder being received through gift and exchange; also 102 pamphlets and 3,130 serials, chiefly the publications of learned societies, were received and recorded. The cataloging kept pace with the new accessions, and some progress was made in cataloging ethnologic and related articles in the earlier serials, 3,840 cards being added to the catalog. A considerable amount of reference work was done in the usual course of the library's service to investigators and students, both those in the Smithsonian Institution and others.

ILLUSTRATIONS

Following is a summary of work accomplished by E. G. Cassedy, illustrator, for the Bureau.

Water-color drawings.....	71
Line drawings.....	64
Stipple drawings.....	50
Wash drawings.....	4
Crayon drawings.....	1
Graphs.....	38
Maps.....	13
Lettering jobs.....	206
Layouts—Sizing, lettering, and assembling.....	119
Retouched drawings.....	35
Tracings.....	2
Retouched photos.....	8
Restored negatives.....	8

Accession
number

COLLECTIONS

123372. Skeletal material from a burial site near Sarasota, Fla. (1 specimen).
 125140. Archeological material from various sites in Louisiana, Georgia, and Mississippi, collected by W. M. Walker during the fall of 1932 (63 specimens).
 125392. Archeological and human skeletal remains, also some bird bones and four incomplete dog skeletons, collected in Arizona by Dr. F. H. H. Roberts, Jr., during the seasons of 1931 and 1932 (662 specimens).
 126434. Ethnological material from the Sumu and Miskito Indians collected by Dr. W. D. Strong while on a recent expedition to Honduras, also some natural history specimens (43 specimens).
 128084. Ethnological specimens from Australia and Papua presented to the Bureau by Joel H. DuBose (13 specimens).
 129974. Archeological and skeletal material collected by F. M. Setzler from August 20 to November 1, 1933, from mounds and village sites within the Marksville Works, near Marksville, La. (1,772 specimens).

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Miss Marion Illig, junior stenographer, resigned on December 11, 1933.

Miss Edna Butterbrodt was appointed junior stenographer on June 1, 1934.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,
Secretary, Smithsonian Institution.

Fifty-second Annual Report
of the
BUREAU OF AMERICAN
ETHNOLOGY

1934-1935



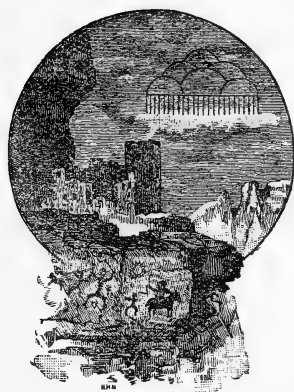
SMITHSONIAN INSTITUTION
WASHINGTON
D. C.



FIFTY-SECOND
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1934-1935



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1935

FIFTY-SECOND ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1935, conducted in accordance with the act of Congress of March 28, 1934. The act referred to contains the following item:

American ethnology: For continuing ethnological researches among the American Indians and the natives of Hawaii, the excavation and preservation of archeologic remains under the direction of the Smithsonian Institution, including necessary employees, the preparation of manuscripts, drawings, and illustrations, the purchase of books and periodicals, and traveling expenses, \$52,910.00.

SYSTEMATIC RESEARCHES

M. W. Stirling, Chief, left Washington on October 23, 1934, to investigate the location of finds of the eastern type of Folsom point in King and Queen and Halifax Counties, Va., and in Granville County, N. C. It was discovered that the points in question were all surface finds, the exact location of several being examined. Two interesting facts developed from this study: None of the Folsomlike points was found in connection with village site material, and all of them were recovered from hilltop fields or other elevations where erosion had removed the topsoil. Until finds are made in situ, and in association with other material, very little can be said as to the antiquity of the specimens beyond the fact that they appear to be earlier than the ceramic horizons in the same region.

On January 18, 1935, Mr. Stirling arrived at San Jose, Guatemala, from which point he visited archeological sites on the Pacific Coastal Plain. Proceeding to the highlands of Guatemala, he visited several Maya Quiche villages in the vicinity of Lake Atitlan and Chichicastenango. Subsequently he studied the old empire ruins of Quirigua on the Motagua River and Copan in Honduras. After returning to Guatemala from Honduras, Mr. Stirling proceeded to

Yucatan, where he spent a week as a guest of the Carnegie Institution in viewing the sites of Uxmal and Chichen Itza. On February 12 he returned to Washington.

On June 18 Mr. Stirling left Washington from Macon, Ga., to examine the progress made by Dr. A. R. Kelly on the large-scale mound excavations near that city. From Macon Mr. Stirling proceeded to Brunswick, Ga., to view some of the archeological sites on the Sea Islands and to consult with National Park Service officials regarding the establishment of archeological monuments in that area. From Brunswick he went to Manatee, Fla., to examine some interesting Calusa material discovered by Montague Tallant. Following this, a brief trip was made to Cape Sable and the Florida Keys to locate some of the southernmost examples of Calusa archeological sites. On the return trip to Washington, he spent 2 days at Tallahassee, Fla., in consultation with Vernon Lamme, Florida State Archeologist, and visited several interesting sites in the vicinity.

Dr. John R. Swanton, ethnologist, devoted a considerable part of the year to the amplification of his report on the Southeastern Indians, material being added from Spanish, French, and English sources.

In November and the first week of December, Dr. Swanton, accompanied by F. M. Setzler, assistant curator of archeology in the United States National Museum, visited Macon, Ga., as the guests of Dr. and Mrs. Charles C. Harrold, stopping on the way at various points in North Carolina to examine archeological collections and sites connected with the expedition of De Soto. They remained in Atlanta, at the invitation of Mr. and Mrs. Beverly M. Du Bose, long enough to view the famous Etowah mounds at Cartersville. Besides visiting several sites in the immediate neighborhood of Macon, they made a trip to Panama City, Fla., and with the helpful cooperation of Judge Ira A. Hutchinson of that place viewed many of the sites explored by Clarence B. Moore and obtained an excellent collection of potsherds from one of the large shell heaps. On the return trip to Washington productive attempts were made to identify sites visited by De Soto in both North and South Carolina. Lectures were delivered at Macon and also at Emory University, Atlanta, before those interested in the local archeology.

During the last week in December, Dr. Swanton took part in a conference on the prehistory of the lower Mississippi Valley at Baton Rouge, La., and on his way back spent some time visiting Indian sites along Alabama River with James Y. Brame, Jr., of Montgomery, Ala.

Shortly before the end of the year Dr. Swanton took up again his work on the Timucua linguistic material, which had been laid aside for some time. Timucua is no longer spoken, and, with the

exception of two letters and some isolated words, all that is known regarding it is contained in five early seventeenth-century religious works published by the Franciscan friars Pareja and Movilla, with a grammar by the former.

At the beginning of the year Dr. Truman Michelson, ethnologist, was engaged in working out the phonetic shifts of Natick on the basis of the material contained in Trumbull's Dictionary. With very few exceptions these are now satisfactorily solved, and have been indexed on file cards. When a few remaining obscure points are elucidated it will be possible to present a complete paper for publication. During the year a number of technical papers were prepared for publication in certain professional periodicals. Among these is a series of papers solving certain difficulties in Algonquian sound-shifts and etymologies as well as showing that some sound-shifts took place in Proto-Algonquian times. An article on Winnebago social and political organization should also be noted. The data extracted from Caleb Atwater's writings, previously neglected, are important. A new technique of determining the gentes of some tribes at certain times is given. Since gentes often own personal names, it is clear that personal names occurring as the signers of treaties and in early documents can be utilized in determining the gentes. Of general ethnological interest will be Dr. Michelson's communication, shortly to be published in the *American Anthropologist*, on Miss Owen's Folk-Lore of the Musquakie Indians. Since the book deals with the Musquakie Indians, we have a right to suppose that the Indian words cited are Musquakie. However, Dr. Michelson shows that several are not even Algonquian but Siouan. Dr. Michelson has prepared and submitted for publication two papers: "Further Notes on Algonquian Kinship Terms" and "What Happened to Green Bear Who Was Blessed with a Sacred Pack."

Dr. John P. Harrington, ethnologist, continued during the year his researches on the Indians of California and other related western Indians, both in the field and in Washington. At the beginning of the year he was engaged in work in southern California with an aged Indian, reviewing with him the ethnology contained in Father Boscana's unique report on the culture of the southern California coast Indians, written in 1822, the manuscript of which Dr. Harrington recently discovered. The rehearing and annotating of this important manuscript was continued with other informants until well into the fall, resulting in the elucidating of practically every passage of the old text. On the completion of this work Dr. Harrington returned to Washington, D. C., to continue the annotation of the Boscana manuscript. Owing to the presence of Mission Indians in the city of Washington during all the latter part of the year, as

delegates in connection with legislative work, Dr. Harrington availed himself of this opportunity to amplify the work. Legends and other materials from these Indians were reheard, discussed, and edited. This work was still in continuation on June 30.

Dr. Frank H. H. Roberts, Jr., archeologist, devoted considerable time during the year to a study of the problem of so-called Folsom man. Extensive correspondence was carried on with collectors throughout the country concerning their finds of Folsom points and many examples were sent to him for study, photographing, and measuring. As a result of this work much new information was obtained concerning variations in this peculiar type of projectile point and its distribution.

Dr. Roberts left Washington September 23, 1934, for Fort Collins, Colo., to investigate a site which had been reported to the Smithsonian Institution by Maj. Roy G. Coffin, professor of geology in Colorado State College. The site was discovered in 1924 by Judge C. C. Coffin and his son, A. L. Coffin, of Fort Collins. Among the specimens were points which later were identified as belonging to the Folsom type, the oldest thus far known in North America. Dr. Roberts spent 6 weeks exploring the site, with the permission of the owner of the land, William Lindenmeier, Jr., of Fort Collins. From an intact midden layer 14 feet below the present ground level, and a quarter of a mile distant from the place of the original finds by the Coffins, he procured a whole series of implements which definitely establish a complex for the Folsom horizon.

Dr. Roberts returned to Washington November 20, 1934, and during the winter months prepared a manuscript detailing the results of his work. This paper, entitled "A Folsom Complex: Preliminary Report on Investigations at the Lindenmeier Site in Northern Colorado", was published June 20, 1935, in the *Smithsonian Miscellaneous Collections*, vol. 94, no. 4, publ. no. 3333.

Dr. Roberts left Washington again for Fort Collins on May 26. A camp was established at the Lindenmeier site and excavations on a larger scale than those of the preceding autumn were begun. The digging yielded numerous specimens of stone implements and a considerable quantity of bison bones, indicating that they are from much larger animals than the modern bison. A number of stone implements were found in direct association with these bones, and one vertebra contains the tip end from a typical Folsom point.

While the work at the Lindenmeier site was progressing, Dr. Roberts visited a number of locations in the northern Colorado area where Folsom specimens have been found. None of the latter indicated possibilities for increased knowledge on the subject comparable to those at the Lindenmeier site.

During the month spent in the office Dr. Roberts also worked on manuscripts detailing the results of archeological work conducted in Arizona and at Shiloh National Military Park, Tenn.

From July to October 1934, Dr. W. D. Strong, ethnologist, was in Washington working with the collections made in Spanish Honduras during the preceding years. During the year a report on one phase of this work, entitled "Archeological Investigations in the Bay Islands, Spanish Honduras", was completed. It was published February 12, 1935, in the Smithsonian Miscellaneous Collections, vol. 92, no. 14. In October 1934 Dr. Strong was sent to Fort Collins, Colo., to examine and assist in work at a newly discovered site where a habitation level occupied by Folsom man was being investigated by Dr. F. H. H. Roberts, Jr., of the Bureau of American Ethnology. Returning to Washington in the same month, he was occupied for some time in revising and amplifying an earlier report, "An Introduction to Nebraska Archeology", which was completed and went to press March 1, 1935. From December 1934 until the end of the year, Dr. Strong served as an adviser in anthropology to the Bureau of Indian Affairs. Prior to May 1934 this work was carried on in addition to his other duties but, subsequent to that time, through an arrangement between the Bureau of American Ethnology and the Bureau of Indian Affairs, full time was devoted to this task.

Winslow M. Walker, associate anthropologist, devoted the time from July 1 until the end of the calendar year in working with the collections made in connection with the Federal Civil Works Administration relief project at Buena Vista Lake, Calif. At the same time Mr. Walker was able to continue work in connection with his researches in the lower Mississippi Valley, and completed for publication the report of his work on the large mound at Troyville, La.

J. N. B. Hewitt, ethnologist, was engaged during the year in a revision of the native Onondaga text of the Requickening Address of the Condolence Convocation of the Iroquois League, adding to the text and translation the summarizing speech introductory to the Second Part of this Address, retranslating the whole. He also revised the historical tradition of the founding of the League of the Iroquois, not only words but incidents as well, retranslating the whole to conform to the corrections. Texts of laws relating to other aspects of the League were also revised and made to conform to later information obtained in his researches.

Mr. Hewitt worked on the preparation of a paper analyzing approximately 400 Chippewa place names. He also prepared a list of over 200 Seneca personal names arranged according to the age grades of the individual.

In the course of the year Mr. Hewitt attended the meetings of the Advisory Committee to the Division of Geographic Names of the

Department of the Interior, for which he also did some research work.

SPECIAL RESEARCHES

Miss Frances Densmore, a collaborator of the Bureau, continued her study of Indian music during this year, submitting disk records of Indian songs made at the Century of Progress Exposition. The records of seven songs were submitted, with transcriptions of two Navaho and four Sioux songs, and accompanying data. These have been cataloged consecutively with her former work. Two of the Sioux songs were selected by Dean Carl E. Seashore for graphic reproduction by his method of phonophotography, the work being done at his laboratory at the University of Iowa, Iowa City. This is the first use of this technique of graphical recording in connection with the study of Indian music. Dr. Seashore states: "From a single playing before the microphone three groups of records are made: First, a re-recording of the song on hard disks for auditory reference; second, a phonophotographic record of pitch, intensity and time; and, third, an oscillogram for harmonic analysis to determine tone quality." Through his courtesy there was submitted a print of a portion of the original phonophotogram of one of these songs, and a graph, or "pattern score" made by Dr. Harold Seashore from the phonophotogram. A comparison of this score with the transcription made by Miss Densmore corroborates the evidence of the ear in discerning the pitch of Indian singing and also opens interesting new avenues of investigation. Miss Densmore added a chapter on a summary of analysis to her book on British Columbian music, awaiting publication.

Acknowledgment is made of the courtesy of Mrs. Laura Boulton and Dr. George Herzog in providing the use of the Fairchild disk recording apparatus on which Indian songs were recorded at the Century of Progress Exposition.

EDITORIAL WORK AND PUBLICATIONS

The editing of the publications of the Bureau was continued through the year by Stanley Searles, editor. In addition to the current work of the office, considerable progress was made on comparing and correcting the comprehensive manuscript index of Bulletins 1-100 of the Bureau. Every entry is being verified.

An index of Schoolcraft's work entitled "Indian Tribes", in six volumes, begun last year, is well advanced.

Bulletin 112, "An Introduction to Pawnee Archeology", by Waldo Rudolph Wedel, was edited and prepared for printing; and work has been done on other manuscripts in the custody of the editor. Publications distributed totaled 11,955.

LIBRARY

The reference library has continued under the care of Miss Ella Leary, librarian. The library consists of 31,101 volumes, 17,189 pamphlets, and several thousand unbound periodicals. During the year 400 books were accessioned, of which 47 were acquired by purchase, the remainder being received through gift and exchange of Bureau publications; also 94 pamphlets and 3,125 serials, chiefly the publications of learned societies, were received and recorded. Books loaned during the year numbered 1,069. In the process of cataloging, 1,550 cards were added to the catalog files. Requisition was made on the Library of Congress during the year for 140 volumes for official use. This year, more than in previous years, advantage was taken of the interlibrary loan service for books needed by the staff.

As usual, hundreds of publications were consulted in the library during the year by investigators and students, other than members of the Smithsonian Institution. Individual contributors both at home and abroad continued to show their interest by sending contributions to the library.

ILLUSTRATIONS

Following is a summary of work accomplished by E. G. Cassedy, illustrator:

Engrossing	1
Line drawings	115
Graphs	43
Photographs retouched	68
Maps	29
Tracings	17
Lettering jobs	147
Plates prepared	97
Photographs colored	21
Mechanical drawings	5
Paintings repaired	2
Total	545

COLLECTIONS

Accession
Number

130570. Pottery fragments from Weeden Island, Fla., collected by D. L. Reichard (4 specimens).
130576. Human skeletal material obtained through excavations conducted under the Federal Civil Works Administration by W. M. Walker at various sites in California (88 specimens).
132127. Skeletal material excavated from Peachtree Mound at Murphy, N. C. (39 specimens).
132168. Skeletal material obtained in the course of archeological work conducted at Ormond Beach, Fla., during the winter of 1933-34 under the Federal Civil Works Administration (53 specimens).

133314. Collection of archeological material obtained on the mainland of Spanish Honduras and on the adjacent Bay Islands by Dr. W. D. Strong in 1933 (327 specimens).
134994. Skeletal material from Perico Island, Manatee County, Fla., collected by the C. W. A. during the winter of 1933-34 (180 specimens).

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—The appointment of Winslow M. Walker, associate anthropologist, was terminated May 31, 1935, owing to ill health.

Miss Helen Heitkemper was temporarily appointed as junior stenographer in the absence of Miss Edna Butterbrodt, on furlough. Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,

Secretary, Smithsonian Institution.





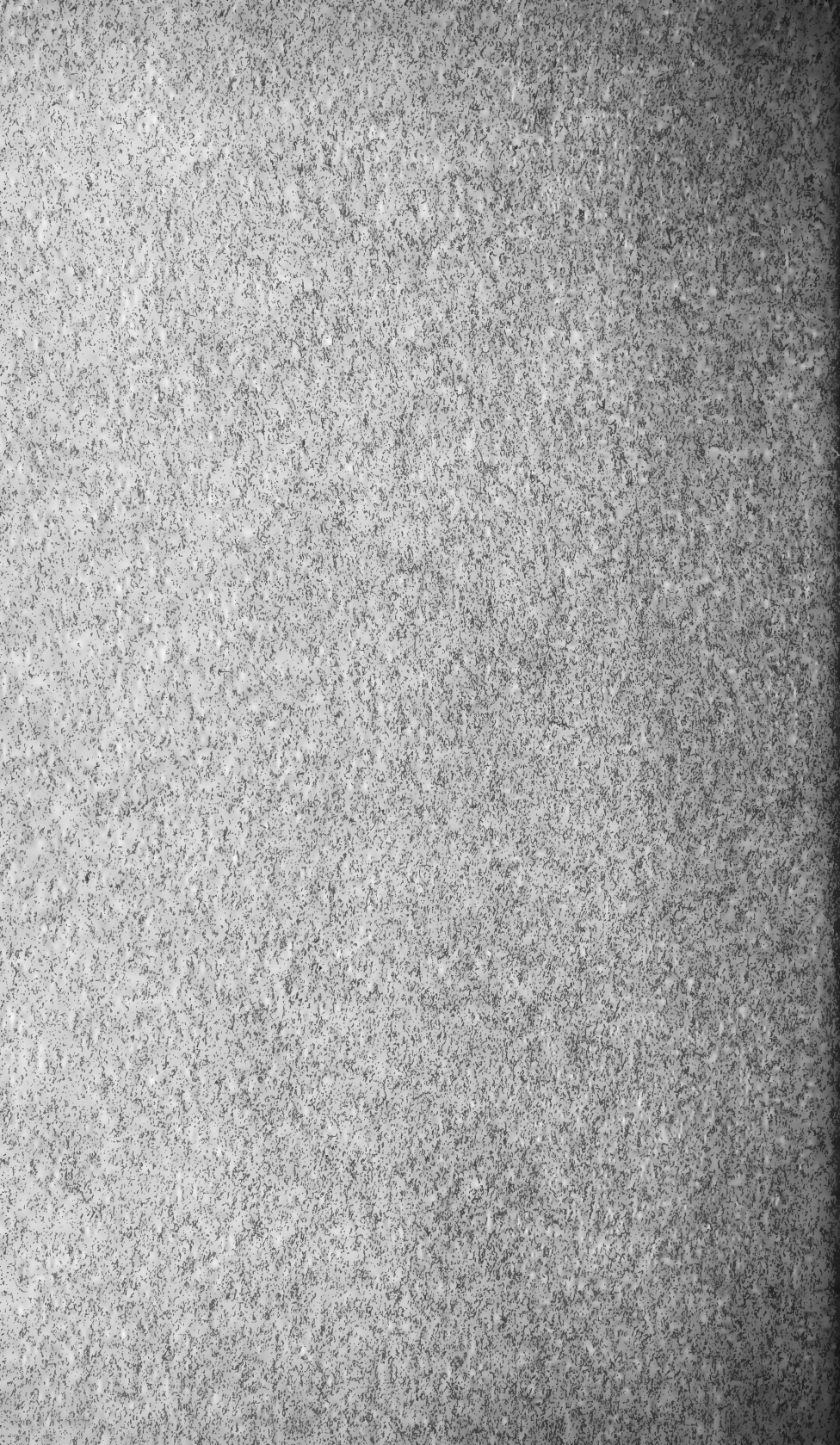
Fifty-third Annual Report
of the
BUREAU OF AMERICAN
ETHNOLOGY



1935-1936



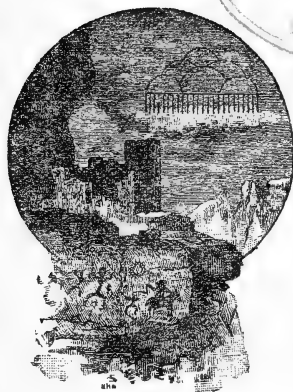
SMITHSONIAN INSTITUTION
WASHINGTON
D. C.



FIFTY-THIRD
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1935-1936



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1937

FIFTY-THIRD ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1936, conducted in accordance with the act of Congress of February 2, 1935. The act referred to contains the following item:

American ethnology: For continuing ethnological researches among the American Indians and the natives of Hawaii, the excavation and preservation of archeologic remains under the direction of the Smithsonian Institution, including necessary employees, the preparation of manuscripts, drawings, and illustrations, the purchase of books and periodicals, and traveling expenses, \$58,730.00.

SYSTEMATIC RESEARCHES

At the beginning of the fiscal year M. W. Stirling, Chief of the Bureau, was in southern Florida for the purpose of locating archeological sites which it was anticipated would be excavated later in the year with relief labor. Mr. Stirling returned to Washington the latter part of July. In December two Works Progress Administration archeological projects having been approved on request of the Florida State Archaeological Survey in cooperation with the Smithsonian Institution, Mr. Stirling again went to Florida in order to consult with Works Progress Administration officials and supervise the establishing of the projects in Hillsborough and Dade Counties. He returned to Washington December 22. During the visit of a Blackfeet Indian delegation to Washington in the month of March 1936 opportunity was taken to make further checks and modifications on the sign language material of the late Gen. Hugh L. Scott.

Dr. John R. Swanton, ethnologist, devoted the greater part of his time during the first half of the fiscal year to the arrangement of the Timucua linguistic material under stems. Further material was added to his large paper on the Indians of the Southeast. On December 26, 1935, Dr. Swanton was appointed by the President a member of a commission of seven "to study and report to the next session of Congress its recommendations for a suitable celebration of the four-hundredth anniversary of the expedition of Hernando de Soto."

A later act of Congress extends the time within which the report may be made to January 2, 1939. Since this appointment was made, the activities of the Commission have absorbed a great deal of his time, involving as they do the promotion of research in foreign repositories of manuscripts, particularly those of Spain, the translation of Spanish works, and especially a study and determination, as far as that is possible, of the route taken by the great explorer and his successor, Moscoso, through territories now covered by 10 States of the Union. This involves the use of library materials and direct study in the field. At the request of the other members of the Commission, Dr. Swanton acted in the capacity of temporary chairman in arranging the first meeting, March 5 to 7, in the Smithsonian Building. At this meeting Dr. Swanton accepted the permanent chairmanship of the Commission, with the understanding, however, that he was to serve only until the factual report is made. A second meeting was held at Tampa, Fla., on May 4 to 6. After this was over, he accompanied Col. J. R. Fordyce, vice-chairman of the Commission, in an investigation of parts of the route of De Soto between Florida and Mississippi, and May 30 to June 18 he made a second expedition to examine that section between South Carolina and the Mississippi River.

During the year an interesting and ethnologically important letter bearing on the Indians of Florida was brought to Dr. Swanton's attention by Dr. Lucy L. Wenhold, of Salem College, Winston-Salem, N. C. A negative photostat of this document is also in the possession of the Florida State Historical Society, which has kindly loaned the use of it in making a positive copy, and this is being prepared for publication in the Smithsonian Miscellaneous Collections with annotations by Dr. Swanton and Dr. Wenhold.

On July 3, 1935, Dr. Truman Michelson, ethnologist, started on an expedition to the region of James and Hudson Bays, made possible by a subvention from the American Council of Learned Societies. The object was to make a linguistic map of this area. He spent some weeks at Moose Factory, about 10 days at the Great Whale River, a little over 2 weeks at Fort George, and a day at Rupert's House, and returned to Washington September 20. Besides getting data from the Indians and Eskimos of these places, he was able to get in contact with one Indian from the East Main River, one Cree from Wenusk, on the west side of Hudson Bay, one Cree from the Albany River, who had also been at Attawapiskat, and one Ojibwa from the Albany River. Data from some of the more remote localities were obtained by indirect means. His observations indicate that the folklore and mythology of these northern tribes are far closer to those of the Central Algonquian tribes than is usually thought.

On June 5, under a new grant from the American Council of Learned Societies, Dr. Michelson left Washington to renew his studies among the Indians and Eskimos of the James and Hudson Bays region.

The entire fiscal year was spent by Dr. John P. Harrington, ethnologist, in study of the Mission Indians of California, compiling complete notes for the forthcoming edition of the Boscana manuscript of 1882, which tells in 15 chapters of the life and religion of these Indians. This important manuscript of the early Franciscan Father Boscana, a missionary born in Catalonia, Spain, and stationed for years among the Mission Indians, was recently discovered by Dr. Harrington and a literal English translation of it without notes has already been published.

As a byproduct of the preparation of these notes an interesting account of the ethnology of the Mission Indians has been assembled, covering their mode of life, dress, food, sociology, religion, language, and knowledge of nature. The presence of Mission Indians in Washington has constantly enhanced and perfected this work throughout the fiscal year.

At the beginning of the year Dr. F. H. H. Roberts, Jr., archeologist, was engaged in excavations at the Lindenmeier site north of Fort Collins, Colo. This work was continued until September 10. The Lindenmeier site is the location where the first series of stone implements definitely attributable to the Folsom complex, the oldest established horizon in the archeology of North America, was found in the autumn of 1934. The investigations of the 1935 season were a continuation of those begun the preceding fall and consisted of intensive excavation of certain portions of the site. The digging brought forth additional information which makes possible the drawing of more detailed conclusions on the material culture of Folsom man.

When the summer's project was brought to a close Dr. Roberts went to Globe, Ariz., at the request of the authorities at Gila Pueblo, for the purpose of conferring with members of the staff on the finds which they had made at Snaketown, a Hohokam site, near Phoenix. He also studied the collections in the Gila Pueblo Museum and visited the Snaketown site and Casa Grande. The latter was the scene of considerable activity on the part of Cosmos Mindeleff and Dr. J. Walter Fewkes, members of the staff of the Bureau of American Ethnology, 40 and more years ago. Dr. Roberts returned to Washington October 1.

In January he took part, by special invitation, in a symposium on Early Man in America which was held at the annual meeting of the Society of American Naturalists at St. Louis. He also prepared a manuscript detailing the work done during the summer. This report,

Additional Information on the Folsom Complex, Report on the Second Season's Investigations at the Lindenmeier Site in Northern Colorado, was issued on June 30 as Smithsonian Miscellaneous Collections, vol. 95, no. 10.

Dr. Roberts left Washington June 1 for Anderson, Iowa, to inspect a site where Folsom points and other material had been found. This proved to be a highly interesting place, as it marks the easternmost locality that the true or High Plains form of the Folsom point has been noted. While in Iowa he saw and studied numerous collections of specimens and found evidence of the Folsom complex at a number of sites. From Iowa he proceeded to Colorado, where he resumed excavations at the Lindenmeier site. By the end of the year, June 30, several trenches had been run through portions of the site and an area 20 by 30 feet had been completely cleared of the several feet of accumulated earth which had covered it. This area consisted of an old occupation level upon which the traces of Folsom man and his activities were numerous.

From July 1935 to January 1936 Dr. W. D. Strong, anthropologist, served as consultant in anthropology to the Bureau of Indian Affairs. In addition to office work in relation to numerous acculturation studies being made on various Indian reservations of the United States, Dr. Strong made two field trips to various reservations and administrative centers in New Mexico and Arizona in August and December, respectively. In November a trip of several weeks was made to the Chippewa reservations in Minnesota to advise on problems of tribal reorganization. On January 5, 1936, Dr. Strong left Washington for Honduras as leader of a joint archeological expedition from the Bureau of American Ethnology, Smithsonian Institution, and the Peabody Museum, Harvard University. He was assisted in the field by Alfred Kidder II and Drexel A. Paul, Jr., from the Peabody Museum. Establishing its base at Progreso, in the Ulua Valley, the expedition made stratigraphic excavations at several sites on the Ulua River. In March and April Dr. Strong, with Mr. Paul, conducted excavations around the north end of Lake Yojoa, while Mr. Kidder worked on the Comayagua River. In May and June the entire expedition worked sites on the Chemelicon River, including the site of Naco, first visited by Cortez and the early Spanish Conquistadores.

On the Ulua River excellent stratigraphic series were secured of the prehistoric polychrome pottery horizons. At Playa de los Muertos, on the Ulua, these horizons, corresponding roughly to the close of the Maya Old Empire, were found to overlay a much earlier living level marked by monochrome, polished, and incised pottery.

The work of the expedition approached conclusion in June, and on June 30 preparations for departure began. Throughout its entire work the expedition received cordial cooperation and assistance from

the government of the Republic of Honduras. It was also materially aided by the United Fruit Company, from whose employees it received unlimited hospitality. Without these much appreciated sources of cooperation its scientific results would have been much curtailed.

Dr. Julian H. Steward was appointed as associate anthropologist in the Bureau, effective October 21, 1935. During September 1935, prior to reporting to Washington, Dr. Steward traveled to Pendleton, Oreg., for the purpose of making a selection of 200 negatives of ethnological subjects taken by the late Maj. Lee Morehouse. These were purchased by the Bureau from Mrs. L. L. Cornelison, his daughter. From November 16 to December 10, 1935, Dr. Steward was engaged in conducting a W. P. A. archeological project in the vicinity of Miami, Fla. During this time he supervised the excavation of the large mound at Miami Beach and began work on a smaller mound several miles northwest of the city of Miami. Because of Dr. Strong's departure for Honduras, when Dr. Steward returned to Washington he was delegated to continue the cooperative work between the Bureau of Indian Affairs and the Bureau of American Ethnology previously conducted by Dr. Strong. In connection with these duties Dr. Steward made an extended trip from March 7 to April 15, 1936, in the interest of the Bureau of Indian Affairs. On June 19 he left Washington for the purpose of continuing his field work among the Shoshoni, Bannock, and Gosiute Indians of Utah, Nevada, and Idaho. During the winter and spring Dr. Steward prepared for publication a series of trait lists collected from the Shoshoni Indians of Nevada during the summer of 1935. From other material collected at the same time he completed two articles entitled "Shoshoni Polyandry" and "Panatubiji, a Biography of an Owens Valley Paiute." In addition, Dr. Steward completed for publication in the Smithsonian Annual Report an article entitled "Indian Petroglyphs of the United States."

J. N. B. Hewitt, ethnologist, completed a detailed study of the approximate position and territorial habitat of the northern Iroquoian tribes and of the contiguous Algonquian peoples as they were at the time these groups were first visited by the early explorers. Mr. Hewitt also made a historical study for the purpose of showing the marked influence of the principles and aims of the League of the Five Iroquois Tribes as founded by Deganawida in the early sixteenth century on those of the Constitution of the United States.

Mr. Hewitt had previously recorded from the late Chief J. A. Gibson two Onondaga versions of what is fundamentally a single ritual, namely, the Requickenening Address. He made a new translation of these, having first revised both texts so that there should be no material differences in the meaning of the two. He also made a careful revision of the Onondaga texts and laws relating to the posi-

tion and powers and limitations of the Federal Chieftains, and also those governing the Chief Warriors.

He also added to the Bureau's collection of ritual wampum strings by completing two new sets of strings made from loose beads on patterns taken from originals in the Museum of the American Indian, Heye Foundation, and a set which was owned by the late Chief David Skye, of the Canadian Six Nations.

During the year Mr. Hewitt continued to represent the Bureau of American Ethnology on the Advisory Committee on Geographic Names, Department of the Interior.

On June 21, 1936, Mr. Hewitt left Washington on field duty, visiting the Tuscarora Reservation near Lewiston, N. Y., and then the Grand River Grant to the Six Nations in Ontario. On the latter reservation he obtained a short Delaware vocabulary and a fine Mohawk text embodying the so-called Handsome Lake Religion, the preparation of which was about completed by the end of the fiscal year.

SPECIAL RESEARCHES

Miss Frances Densmore, a collaborator of the Bureau of American Ethnology, in continuation of her study of Indian music, submitted a manuscript entitled "Dance Songs of the Seminole Indians", with phonograph records and transcriptions of 25 songs. These songs were recorded in February 1932 at Brighton, Fla., by Billie Stewart, one of the best singers in the Cow Creek group of the tribe. Five songs connected with the tribal ball game were presented, together with songs of the alligator, steal-partner, switch-grass, and buffalo dances. The songs of the ball game were sung to bring success and were accompanied by beating on a water-drum hung by a strap from the player's shoulder. A coconut-shell rattle accompanied the dances. All the songs of each series were recorded. This afforded an opportunity to note the maintaining of a fundamental pitch throughout the series, with a pleasing variation of rhythm in the several melodies.

EDITORIAL WORK AND PUBLICATIONS

The editing of the publications of the Bureau was continued through the year by Stanley Searles, editor. In addition to the current work of the office the comprehensive manuscript index of Bulletins 1-100 has been corrected. All entries have been verified.

An index of Schoolcraft's "Indian Tribes", in six volumes, is nearing completion. More than 30,000 entries have been made and are now being alphabetized.

Bulletin 112, "An Introduction to Pawnee Archeology", by Waldo Rudolph Wedel, and Bulletin 113, "The Troyville Mounds, Catahoula Parish, Louisiana", by Winslow M. Walker, were issued.

Work has been done on other manuscripts in the custody of the editor.

Publications distributed totaled 9,337.

LIBRARY

Miss Ella Leary continued in charge as librarian until February 29, 1936, when she was retired on account of ill health. Miss Miriam B. Ketchum was appointed to succeed her, effective April 1, 1936.

The following figures apply to bound books and pamphlets of 100 pages or over. Pamphlets of less than 100 pages are no longer accessioned.

Books received by purchase-----	18
Books received by exchange-----	62
Books received by gift-----	19
Total-----	99

Numerous pamphlets have been received, as well as the usual periodicals and society transactions, mostly by exchange or gift.

The library contains, as of June 30, 1936:

Total accession record-----	31,200
Total withdrawals and losses-----	661
Net total-----	30,539

There are also about 20,000 pamphlets and more than 3,000 volumes of unbound periodicals and society transactions.

It is planned to reclassify the library according to the Library of Congress scheme of classification, and copies of the scheme in the Bureau's field have been furnished by the Library of Congress. All new material is being put in the new classification, and it is hoped that a real start on older material can be made during the coming year. A shelf list has been begun and will be continued along with the reclassification.

A depository set of Library of Congress catalog cards is being established.

A beginning has been made on refiling the catalog and the task will be completed within the next few months.

ILLUSTRATIONS

Following is a summary of work accomplished by E. G. Cassedy, illustrator:

Graphs.....	29
Line drawings.....	163
Maps.....	12
Photos retouched.....	10
Tracings.....	18
Plates assembled.....	29
Lettering jobs.....	354
Negatives retouched.....	6
Photos colored.....	2
<hr/>	
Total.....	623

COLLECTIONS

Accession
number

- 135,291. Archeological material collected by M. W. Stirling from a village site formerly occupied by the Waccamaw Indians near Myrtle Beach, S. C.
- 138,344. Two earthenware bowls from the Dragoon Mountains, southeastern Arizona.
- 138,501. The Mrs. Charles D. Walcott collection of 27 pictures of Navaho sand paintings and four paintings of miscellaneous subjects.
- 139,472. Ten photographs of Australian natives; 20 lithographs of Congo Negro subjects; 33 slides of subjects from Palestine, Tunis, Syria, etc.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

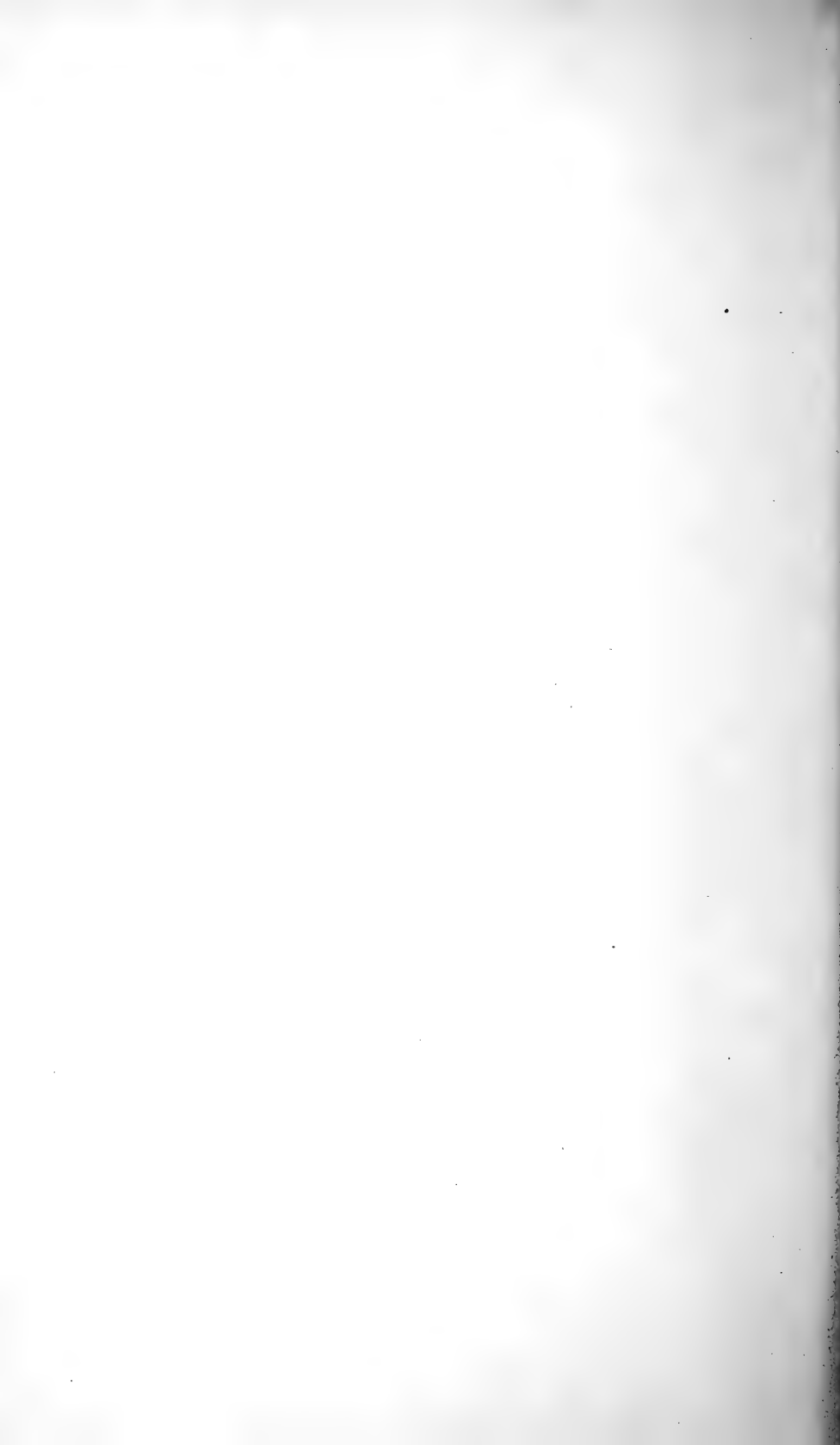
Personnel.—Dr. J. H. Steward was appointed associate anthropologist October 21, 1935. Miss Edna Butterbrodt, junior stenographer, resigned January 12, 1936. Miss Helen Heitkemper was appointed January 28, 1936, to fill the vacancy.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,

Secretary, Smithsonian Institution.

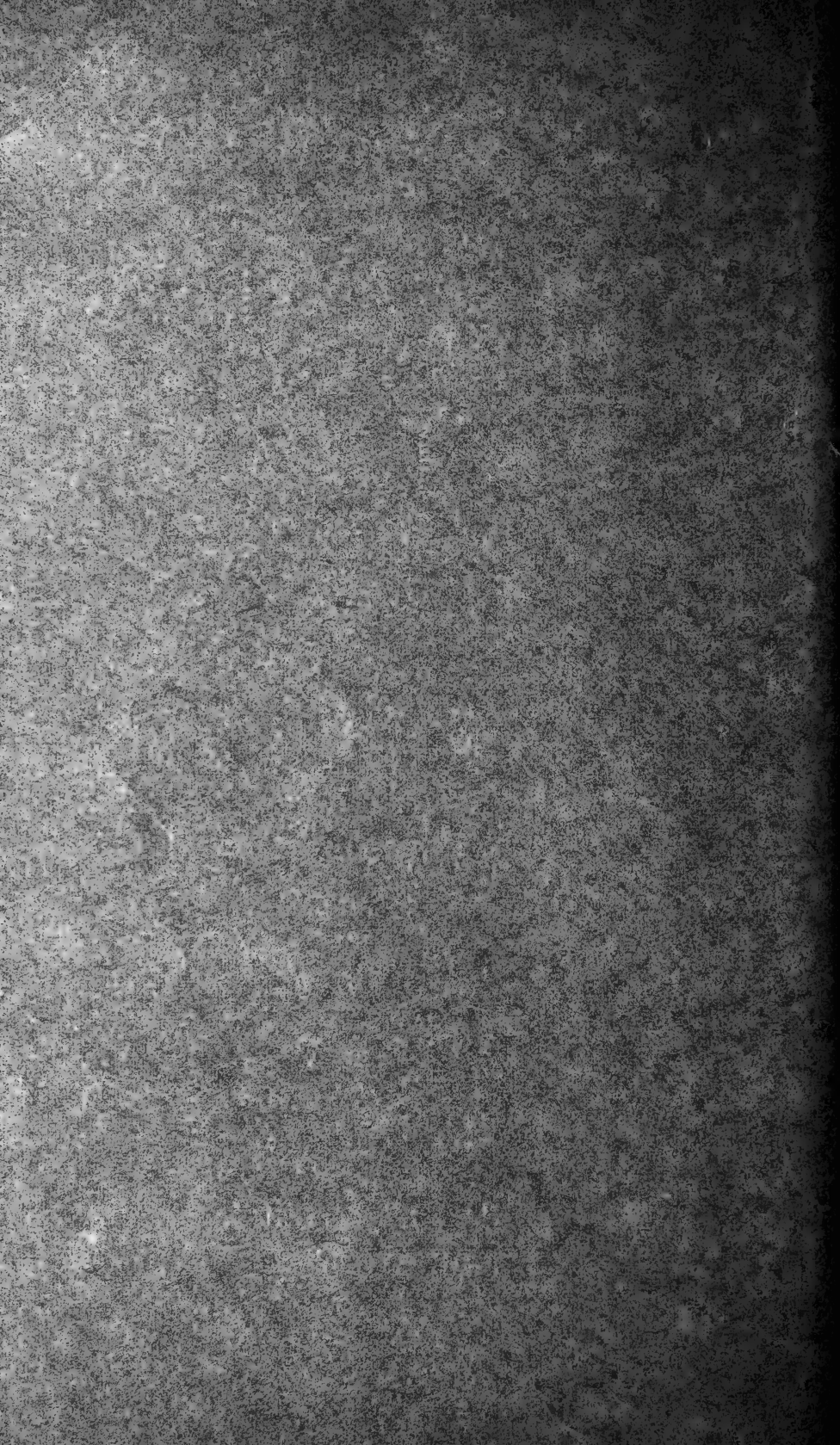


Fifty-fourth Annual Report
of the
BUREAU OF AMERICAN
ETHNOLOGY

1936-1937



SMITHSONIAN INSTITUTION
WASHINGTON
D. C.



FIFTY-FOURTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1936-1937



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1938



FIFTY-FOURTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1937, conducted in accordance with the act of Congress of March 19, 1936. The act referred to contains the following item:

American ethnology: For continuing ethnological researches among the American Indians and the natives of Hawaii, the excavation and preservation of archeologic remains under the direction of the Smithsonian Institution, including necessary employees, the preparation of manuscripts, drawings, and illustrations, the purchase of books and periodicals, and traveling expenses, \$58,730.00.

SYSTEMATIC RESEARCHES

M. W. Stirling, Chief, spent the major part of the fiscal year in Washington, during which time the ethnological report on the Jivaro Indians of Ecuador was completed and submitted to the printer.

At the end of February 1937 Mr. Stirling left Washington for St. Augustine, Fla., in order to attend the conference held under the auspices of the Carnegie Institution of Washington for the purpose of outlining a program of research concerning the historical and archeological past of the city of St. Augustine and vicinity. At the conclusion of this conference he continued to Manatee, Fla., in order to examine some interesting newly discovered mounds in that vicinity. Continuing up the Gulf Coast of Florida, a visit was made to Bristol, on the Apalachicola River, where a sherd collection was made on a large mound near the river south of the town. Mr. Stirling then proceeded to Panama City, Fla., in order to photograph several private archeological collections.

From Panama City, Mr. Stirling went to Macon, Ga., for the purpose of examining the large archeological project there which was inaugurated by the Smithsonian Institution with the Society for Georgia Archeology and now being conducted under the auspices of that society by Dr. A. R. Kelly. From Macon, Mr. Stirling proceeded to Philadelphia, Pa., in order to attend the International Conference on Early Man, held under the auspices of the Philadelphia Academy of Sciences. On the conclusion of this conference Mr. Stirling returned to Washington.

Mr. Stirling was delegated to represent the Smithsonian Institution at the meeting held at Media, Pa., on May 13, 1937, in honor of the one hundredth anniversary of the birth of Daniel Brinton.

Dr. John R. Swanton, ethnologist, devoted the greater part of his time during the past fiscal year to work as chairman of the United States De Soto Expedition Commission. This involved field expeditions from November 11 to December 9, 1936, and from May 16 to June 4, 1937, except for 3 days, December 3 to 5, devoted to a meeting of the Commission at the University of Alabama, Tuscaloosa, Ala. The first field trip extended over parts of Florida, Georgia, Alabama, Mississippi, Louisiana, and Texas. The second was confined to an intensive study of that section of De Soto's route which passed through northern Mississippi. During these expeditions small collections of potsherds were made, which will be of assistance in studying the cultures of the prehistoric inhabitants of the several areas visited. As chairman of the fact-finding committee of the same Commission, Dr. Swanton prepared a report covering about 600 typewritten pages, and this was adopted by the Commission at its Tuscaloosa meeting and embodied in its report to Congress. The entire report has since been submitted, but, as publication has not yet been ordered, it is still possible to add material, and he is engaged in doing so.

During the year Dr. Swanton also made some additions to his data on the Indians of the Southeast, and he has been collecting from original sources the most important references to the Quapaw Indians.

Until the end of the fiscal year Dr. Swanton continued as a member of the executive committee of the Division of Anthropology and Psychology of the National Research Council and as vice-president of section H of the American Association for the Advancement of Science for the current calendar year.

Dr. Truman Michelson, ethnologist, renewed his researches among the Algonquian tribes of the James and Hudson Bay region under a grant-in-aid by the American Council of Learned Societies. He spent some time at Moose Factory, and a short time at Fort George, Attawapiskat, and Weenusk. Owing to the presence of some Albany Cree at Moose Factory and some Indians from Rupert's House as well as on shipboard, he was able to do personal work with them. By correspondence he obtained some additional text-material from Rupert's House; by meeting the manager of the Hudson Bay Co.'s post at the Ghost River and an Indian from Lac la Ronge he obtained data from these regions. The results of the previous expedition were checked up as much as feasible. It results that the statement made previously that east of Hannah Bay Cree leaves off and Montagnais-Naskapi begins is confirmed. Besides texts and vocabularies from the general area, a rather complete schedule of kinship terms for the Great Whale River Indians, those of Fort George, the Cree

of Moose Factory, Albany, Attawapiskat, and Weenusk was obtained. Very obviously the system of consanguinity favors cross-cousin marriage; and it is to be noted that at the Great Whale River and Albany both types of this marriage occur; at Moose and Attawapiskat it is restricted to marriage with paternal aunt's daughter; at Weenusk apparently neither type obtains. It may be mentioned that by linguistic technique it is possible to show in the places named that a number of old terms have been replaced, e. g., the term for cross-nephew has been replaced by the term originally restricted to son-in-law, etc. Also the kinship systems favor exogamy, but he has not been able to find a true gens or clan organization in the whole area.

Dr. Michelson returned to Washington September 20, where he studied the material gathered on this and previous expeditions. By correspondence with Hudson Bay Co.'s officials and a missionary he obtained data on the Cree of Cumberland House, Norway House, Oxford House, Trout Lake, God's Lake (all dialects in which original *l* is replaced by *n*), Montreal Lake, Stanley, Pelecan Narrows (dialects in which original *l* is replaced by *y*). A study was made of the Montagnais of Le Jeune, over 300 years ago; the orthography plainly indicates *kh*, *tch*, and some other variations are representatives of one and the same sound, namely, the one usually transcribed by *tc*. This study enabled him also to make at least one correction to the Handbook of American Indians, and prove one supposed Algonkin tribe actually was Montagnais-Naskapi. From correspondence it would appear that the dialect spoken at Island Lake is a mixture of Cree, Ojibwa, and possibly Algonkin proper. This indicates that in a number of places there is such a mixture, but apparently not on the same scale. A map showing the distribution and interrelations of the Cree and Montagnais-Naskapi dialects has been made. Technical papers have appeared in professional journals, and others have been prepared and are awaiting publication. The Bureau published Fox Miscellany (Bulletin 114), the proof-sheets of which were corrected during the fiscal year.

At the beginning of the fiscal year, Dr. John P. Harrington, ethnologist, prepared a report on the Use of Ferns in the Basketry of the Indians of Northwestern California, centering on the use of fern species among the Karuk tribe. The baskets of this section are really built of lumber, that is, of the shredded roots of the Oregon pine. But the two materials which make the baskets beautiful are the glossy black of maidenhair fern stems and the handsome red of Woodwardia fern filaments, dyed with alder bark.

Dr. Harrington next prepared a paper on Kiowa Memories of the Black Hills and of the Devil's Tower. The Kiowa Indians, 600 miles to the south, still have memories of the Black Hills country of South Dakota, which they occupied some 150 years ago. They

also retain knowledge of myths regarding the remarkable basalt column near Sundance, Wyo., on the northwestern slope of the Black Hills, known as the Devil's Tower, but to the Kiowa as the Rock Standing Like a Tree. An elaborate paper was finished on the subject, going into the geology, history, and mythology of the Devil's Tower.

Dr. Harrington next finished a report on The Northern Provenience of the Navajo and Apache, tracing related languages in detail to Alaska, northwestern Canada, and the Pacific Coast of the United States, and telling in detail how the relationship of Navajo and Apache to the Indians of the far northwest was discovered by W. W. Turner, librarian in the Patent Office, Washington, D. C., in 1852. This voluminous report resulted in the discovery by Dr. Harrington of a curious distribution of these languages, the map of which takes the form of a wishbone. Their nucleus is in the far Northwest, one prong extending down the Pacific Coast and terminating a little north of San Francisco Bay, another eastern prong extending down through the Rocky Mountain region and culminating in the Navajo and Apache of the Southwest. An exhaustive study was made of the earliest documents and maps on the subject, in the compilation of which Dr. Harrington was assisted by the Geographic Board of Canada.

A report was completed on the Siberian Origin of the American Indian, presenting the background, the earliest historic writings on the subject, the Eskimo problem, the problem of the means of crossing (whether by boat, over ice, or by means of former land bridge), the distribution of tribes and density of population as bearing out the theory, and general aspects. In this study he was assisted by many other students, including native interpreters of the Bering Strait region. This report suggests that America was first discovered as a result of over-population which developed in the east of Asia and forced Paleo-Siberian peoples to enter the Chukchi Peninsula. From this point they sighted and spilled over into America, using the Diomedes Islands as resting places on their transit, if this were during the period of the existence of the Bering Strait, and followed the food supply down what is now the Alaskan coast, without realizing that they had discovered anything more than an outlying island.

A paper was prepared on the Life of Jeronimo, Apache Indian Chief, and the Indian leader whose expeditions probably cost the United States Government more money and trouble than did those of any other chieftain. The life and times of Jeronimo were minutely searched, and data were compiled in chronological order. The material of this paper is especially interesting to the American

public as it deals with a period already dimming in the memories of living men. The name, Alope, of the first wife of Jeronimo, was discovered to be merely a corruption of the Mexican Spanish name Guadalupe.

Studies on linguistic relationship in the Southwest and California were continued. These studies have resulted in the discovery that Tano-Kiowan and Aztecan are genetically related, and to this larger group Dr. Harrington gave the name Patlan. The discovery was also made that Hopi is a Southern California Shoshonean dialect, showing developments in common with the Southern California Shoshonean dialects, and constituting with them a dialectic group of the Aztecan family in contradistinction to any other group. This unity of Hopi with Southern California Shoshonean was first noticed many years ago, the word for wood-rat (e. g., Hopi *qáala*, wood-rat, Southern California Shoshonean *qáala*, wood-rat) leading immediately to the discovery. It was also noticed by Dr. J. R. Swanton and Dr. Harrington that Tano-Kiowan and Shoshonean have genetic relationship with the languages of the Southeastern United States (Muskogean, Chitimacha, Atakapa, Tonkawa, Timucua), Tano-Kiowan, for instance, and all the Southeastern languages above-mentioned showing the characteristic prefix *na-*, something, used in deriving nouns from verbs (e. g., Tanoan *tha*, to dwell; *natha*, house).

At the beginning of the fiscal year Dr. Frank H. H. Roberts, Jr., archeologist, was engaged in excavating at the Lindenmeier site in northern Colorado. At this place remains attributable to the material culture of Folsom man, one of the earliest known inhabitants of the New World, are found. The 1936 investigations constituted the third season's work there, and valuable new information was obtained on this important phase in the study of the history of the American Indian. Digging was carried on at three different portions of the site, and considerable new bone material and several new types of implements came from the excavations. Most of the bones were from the large extinct species of bison (*Bison taylori*) which the people hunted, but in addition a number of bones from the American camel, probably *Camelops*, were obtained in direct association with the bison bones and with stone implements. This adds one more extinct species of animal to the list of those found with Folsom artifacts. One of the significant facts established by the work is that the site was occupied before and during a period characterized by the formation of a thick, black soil layer produced by heavy vegetation that thrived when conditions were more favorable than those of recent times. That the people were there before the inception of this era of abundant growth points to an even greater antiquity than that suggested by the presence of implements and bones in the bottom

of the soil level. The work was brought to a close September 5, 1936.

In the latter part of August Dr. Roberts also investigated a site near Kersey, Colo., where Folsom type objects were found by F. W. Powars and his son Wayne, residents of Greeley. This location is on a low terrace of the rolling terrain lying along the south side of the South Platte River valley. Present evidence indicates that it was a camp, but one occupied for a relatively short period of time. Specimens obtained there represent a typical Folsom complex. They are so similar to those from the Lindenmeier site that it is difficult to distinguish between specimens from the two sites. Bones are scarce, and those recovered are so fragmentary that they are valueless for determining the species of the animals represented.

After the completion of the Lindenmeier and Powars site investigations Dr. Roberts proceeded to Sterling, Colo., where he visited and inspected a number of sites in that vicinity. All proved to be of more recent origin than the Folsom type material. From Sterling Dr. Roberts returned to Washington. The autumn months were spent in the office working over the material obtained during the summer's investigations.

February 24 Dr. Roberts sailed for Cairo, Egypt, where he served as one of two American experts at the International Conference of Archeologists held March 9 to 17, under the auspices of the Committee for Intellectual Cooperation of the League of Nations. As his part of the agenda for the sessions, Dr. Roberts presented a paper on the subject "The Material Organization of an Archeological Mission." This included a discussion of the choice of personnel for a field staff, the securing of equipment, the establishment of field headquarters, and the general administration of such a project. At the close of the conference he visited a number of sites in Egypt and had an opportunity to study methods of excavation and general archeological procedure as practiced in the Egyptian area. From Egypt he went to Greece, Italy, France, and England and studied collections in the museums at Athens, Naples, Rome, Paris, and London. He returned to Washington April 24.

On May 21 Dr. Roberts left Washington for Kingman, Ariz., where he and Dr. C. W. Gilmore, curator of vertebrate paleontology, United States National Museum, investigated a find of mastodon bones and man-made objects. The deposit is located near a large spring 24 miles west of Kingman. A week's study and excavation demonstrated that the material was a secondary deposit, washed in from surrounding slopes, and of no importance from the standpoint of the association of man and extinct mammals. Dr. Roberts left Kingman on June 2 for Denver, Colo., and Fort Collins. On June 12 he resumed excavations at the Lindenmeier site. By the

end of the fiscal year an area covering 375 square feet had been uncovered. Numerous implements and considerable additional information were obtained from this work. These data serve to round out more fully the story of the customs and habits of Folsom man.

During the winter months Dr. Roberts also prepared several manuscripts on the subject of the work at the Lindenmeier site and on Southwestern archeology in general.

Upon his return from Spanish Honduras early in the fiscal year, Dr. W. D. Strong, anthropologist, spent his entire time in working over the archeological collections from the Ulua River. With the assistance of Alfred Kidder II, and Drexel A. Paul, Jr., Dr. Strong completed the report on this work which is to be published in the Smithsonian Miscellaneous Collections under the title "Preliminary Report on the Smithsonian Institution-Harvard University Archeological Expedition to Northwestern Honduras, 1936."

From July 1 until late October 1936, Dr. Julian H. Steward, associate anthropologist, continued his work of the previous year among Shoshonean tribes in the Great Basin and Plateau areas. He had two objectives: First, to study the ecological basis of the social and political organization of the bands of horse Shoshoni in Utah and Idaho to supplement his previous study of the foot Shoshoni of Nevada; second, to continue his ethnographic survey by means of an element list. An element list and satisfactory ecological material were procured from the following: Bannock, Fort Hall Shoshoni, Lemhi Shoshoni, and Grouse Creek (northwestern Utah) Shoshoni at Fort Hall, Idaho; Promontory Point (Great Salt Lake) Shoshoni at Washakie, Utah; Pahvant Ute (now almost extinct) at Kanosh, Utah; Gosiute (determined to be actually Shoshoni) at Skull Valley and at Deep Creek, Utah. Before returning to Washington, Dr. Steward drove to Fallon, Nev., to examine guano caves said to hold promise, but found little of interest. He returned by way of southern Nevada and southern Utah, making brief visits to several Southern Paiute reservations. The remainder of the year was devoted to preparation of research material for publication, and eight manuscripts have been completed.

The beginning of the fiscal year found J. N. B. Hewitt, ethnologist, on the Tuscarora Reservation near Lewiston, N. Y., where he went to continue his researches on the League of the Five Iroquois Tribes. From Lewiston Mr. Hewitt proceeded to the Grand River Grant to the Six Nations in Ontario. Here he had the good fortune to obtain a complete Mohawk text embodying the so-called Handsome Lake religious teaching, this document consisting of more than 5,700 Mohawk terms. Considerable additional information was obtained concerning the interesting dual nature of the tribal organiza-

tion. On his return to Washington Mr. Hewitt completed the translation of the Mohawk text giving details of the birth and early childhood of Deganawida, also another Mohawk text giving an account of the dancing lads who finally became the Pleiades.

During the month of June 1937, Mr. Hewitt again left Washington for Brantford, Canada, in order to check over in the field his two large manuscripts in Onondaga text, one being the Iroquois New Year Ceremony and the other consisting of the four Thanksgiving Festivals. The end of the fiscal year found Mr. Hewitt still in the field engaged in this task.

EDITORIAL WORK AND PUBLICATIONS

The editing of the publications of the Bureau was continued through the year by Stanley Searles, editor.

Bulletin 114, Fox Miscellany, by Truman Michelson, was issued during the year.

Bulletin 115, Journal of Rudolph Friederich Kurz, edited by J. N. B. Hewitt, was released for printing.

Bulletin 116, Ancient Caves of the Great Salt Lake Region, by Julian H. Steward, was released for printing.

An index of Schoolcraft's Indian Tribes, in six volumes, has been further advanced toward completion.

Work has been done on other manuscripts in the custody of the editor.

Publications distributed totaled 14,708.

LIBRARY

Miss Miriam B. Ketchum continued in charge throughout the year as librarian.

Accessions during the fiscal year numbered 580 volumes, bringing the total number of volumes in the library to 31,115; there are also about 20,000 pamphlets and about 2,000 volumes of unbound periodicals and society transactions.

The number of volumes prepared and sent to bindery was 1,330.

Library of Congress cards have been obtained for practically all of the new books received during the year and for some of the older material. All new material is being classed in the Library of Congress scheme of classification and separately shelved. A partial depository set of Library of Congress catalog cards has been established and will shortly be installed in working order.

The work of refiling the catalog continues. Thirteen drawers are now finished.

A great many missing numbers have been requested and nearly all of these have been supplied, amounting in some cases to several volumes of a set. Of the exchange sets, 8 old sets which had been allowed to lapse have been reestablished, and 11 new sets have been established.

ILLUSTRATIONS

Following is a summary of the work accomplished by E. G. Cassey, illustrator:

Line drawings.....	266
Graphs.....	13
Plates lettered or numbered.....	199
Plates assembled.....	64
Plates sized for engraver.....	129
Airbrush jobs.....	6
Photos retouched.....	51
Topographic maps.....	3
Maps.....	3
Mechanical drawings.....	3
Lettering jobs.....	3
Engrossings.....	2
Water color paintings.....	1
Total.....	743

COLLECTIONS

Accession
number

- 140,528. Skeletal material from two sites on Canaveral Peninsula, Brevard County, Fla., collected by the Bureau in cooperation with the Federal Civil Works Administration during the winter of 1933-34. (250 specimens.)
- 142,561. Archeological specimens and human and animal bones collected during mound excavations in Florida during the winter of 1933-34 in cooperation with the Federal C. W. A.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Miss Helen Heitkemper, junior stenographer, resigned March 16, 1937. Miss Ethelwyn E. Carter was appointed May 1, 1937, to fill the vacancy.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,
Secretary, Smithsonian Institution.

1937-1938



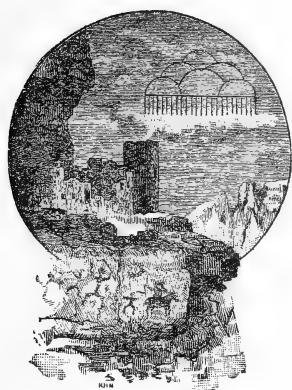
SMITHSONIAN INSTITUTION
WASHINGTON
D. C.



FIFTY-FIFTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1937-1938



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON: 1939

FIFTY-FIFTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1938, conducted in accordance with the act of Congress of June 28, 1937. The act referred to contains the following item:

American ethnology: For continuing ethnological researches among the American Indians and the natives of Hawaii, the excavation and preservation of archeologic remains under the direction of the Smithsonian Institution, including necessary employees, the preparation of manuscripts, drawings, and illustrations, the purchase of books and periodicals, and traveling expenses, \$58,730.

SYSTEMATIC RESEARCHES

During the greater part of the fiscal year, M. W. Stirling, Chief of the Bureau, was in Washington engaged in administrative duties and in preparation of various publications.

From the latter part of January until the middle of March, 1938, Mr. Stirling was in Mexico examining archeological sites and museum collections. A site in the Canton of the Tuxtlas south of Vera Cruz was selected for excavation during the winter of 1938-39.

At the beginning of the fiscal year, Dr. John R. Swanton, ethnologist, was engaged in the preparation of the final report of his researches in the interests of the United States De Soto Expedition Commission, of which he is chairman. One field expedition was undertaken in connection with this research. It was directed in the first instance to the southern part of Clarke County, Alabama, at the invitation of James Y. Brame, Jr., of Montgomery, an indefatigable student of the route of De Soto, who hoped that he had discovered the site of the old town of Mabila, where occurred a notable battle between the Spaniards and Indians on October 18, 1540. The site in question, at a place called Lower James Hammock, on the bluff above Choctaw Lake, proved to be an interesting one and specimens of certain novelty types of pottery were obtained, but the question as to its identity with Mabila is still in doubt, the evidence being rather negative. After this work was finished an attempt was made to locate other Indian town sites in the southeastern part of the county, but, aside from a very small one previously identified by Mr.

Brame, nothing was found, there being, in fact, a singular dearth of Indian remains in this county in the section where it would be natural to look for Mabila. In the southwestern part of the county, however, there is a spot to which the Indians resorted for salt, one noted on early French maps, and here a considerable collection of potsherds was made and a number of pictures of the site taken. While Dr. Swanton was engaged in this investigation, the Choctaw Hunting and Fishing Club kindly extended the use of its camp at Choctaw Bluff.

After returning to Montgomery, Dr. Swanton proceeded to Tuscaloosa and David De Jarnette, assistant to Prof. Walter S. Jones, took him to Scottsboro and afterward on a number of trips along the part of the Tennessee River valley believed to have been traversed by De Soto. It seems to be indicated rather clearly that the Spaniards crossed and recrossed this several times. Before returning to Washington Dr. Swanton attended a meeting on October 29-30 called by the De Soto Committee of the Society of the Colonial Dames of America in preparation for a celebration of the quadricentennial of the passage of the Mississippi by De Soto, and he delivered an address at one of the sessions.

Dr. Swanton has also added some further material to his large paper on the Indians of the Southeast.

In December he presided as vice-president over several sessions of Section H, American Association for the Advancement of Science, at Indianapolis.

In March he was appointed to the United States Board on Geographical Names to occupy the place made vacant by the death of J. N. B. Hewitt, and he attended the twelfth annual meeting on May 23.

Dr. Truman Michelson, ethnologist, left Washington early in July 1937 to undertake field work among the Montagnais-Naskapi Indians of the northern shore of the St. Lawrence River and vicinity. This work was made possible through a generous grant-in-aid made by the American Council of Learned Societies. He arrived at Natashquan July 12 and spent 18 days there, following which he continued his investigations at Seven Islands, Moisie, and Bersimis. Owing to the migratory habits of the Indians Dr. Michelson was able to get data not only on Indians of the localities named but also others in this region, including Mingan, St. Margeret's River, Godbout, Shelterbay, and Sheldrake. He was also able to check up his previous information on the Indians of Davis Inlet, far north on the Labrador coast; and by good fortune came in contact with an Indian of a band from the northeast corner of Lake Kaniapiskau—a band barely known to the scientific world. The principal object was to complete

a map showing the distribution and interrelations of the Cree and Montagnais-Naskapi dialects. In addition to the linguistic work which was the primary purpose of the trip, many new ethnological data were obtained, together with certain observations in physical anthropology. The remainder of the year was spent in Washington in the preparation of manuscripts and in routine work.

At the beginning of the fiscal year Dr. John P. Harrington, ethnologist, finished a comparative study of the Tano-Kiowan family of languages, a compact body of dialects which have inherited the same phonetics, grammatical peculiarities, and vocabulary, although the Tanoan branch is typically Pueblo in culture while the Kiowa branch is equally typical of the Western Plains culture. No linguistic study shows better how habitat has produced two cultures by migration from a linguistic nucleus which had perhaps originally a third culture—possibly like that of the Flatheads of the northern Rockies, from which region the linguistic progenitors of both Tanoans and Kiowans apparently came. The Tano-Kiowan situation, however, is clearer than the surprisingly similar Athapaskan situation, since there is historic information on the northern origin of the Kiowa, whereas the migration of any body of southern Athapascans from the north still remains theoretical. It is established that both the Tanoans and the southern Athapascans of the southwestern United States are of comparatively recent northern origin, at least as far as their language-transmitting ancestors are concerned.

Returning to the study of the Devils Tower, which has a bearing on the Tano-Kiowan provenience problem, Dr. Harrington was assisted materially by Newell F. Joyner, custodian of the Devils Tower National Monument, Devils Tower, Wyo., who supplied a mass of material, including maps and other data. If the Kiowans came from the somewhat far north, it is certain that their linguistic relatives, the Tanoans, did also.

Working by similar methods, Dr. Harrington also made a study of the Athapaskan peoples. Here we have a northern linguistic nucleus still extant, not of the past but of the present, and a family of languages more intimately associated with the problem of the original entry of man from Siberia into America, since if we exclude the somewhat aloof-standing Eskimo, all the territory of America nearest Asia is occupied by the Athapaskan and related Tlingit tongues.

Following up Goddard's discovery that the Kiowa-Apache-Lipan-Jicarilla form a separate language group, having shifted over-aspirated *tx* to *kh*, that is, the *x* having assimilated the *t* to its articulatory position, Thomas' recent work on the Prairie Apaches was found of interest. A considerable list of the Prairie Apaches are

known to us by name through the old Spanish historical documents of New Mexico, showing that the *kh* language was spoken by many tribes which covered a large area of the High Plains. The northernmost of these tribes is reported in old Spanish sources from what is now northeastern Colorado, only 150 miles south of the Black Hills. This takes away the element of novelty from the fact that the Kiowa-Apache joined the Kiowa in the Black Hills region about the year 1800 or earlier, and shows that the Kiowa-Apache also were merely one of the *kh* speaking tribes, typically Prairie Apaches, and not an Athapascan people en route migrating from Canada, as Goddard at first conjectured. A report was finished on the northern provenience of the Navaho and Apache.

Considerable time was also spent on a new sign language study, through Kiowa informants and other sources, bringing out additional information regarding the nature and structure of this interesting Plains Indian invention.

At the beginning of the fiscal year Dr. Frank H. H. Roberts, Jr., archeologist, was conducting excavations at the Lindenmeier Site north of Fort Collins, Colo. This was a continuation of the program of investigations started in the fall of 1934 and carried on during succeeding summers. The location is one where Folsom man, one of the earliest known New World inhabitants, camped and made the weapons and tools that were used in killing and dressing the big game that constituted his main source of sustenance. Work was resumed in 1937 at the point where the 1936 activities terminated and at the end of the summer an area of some 2,800 square feet had been uncovered and numerous traces of occupation noted and studied. Several places were found where bison and other large animals had been dismembered, cooking fires lighted, and a feast enjoyed. At other places there were indications that individuals had been seated there manufacturing stone projectile points, knives, and scrapers. Many charts were drawn recording the nature of the assemblages of bones and stone implements and showing their distribution. In addition, 133 diagrams illustrating the character of the overlying deposits were prepared as the excavations progressed. These, together with the extensive notes on the work, add valuable data to the body of information on the mode of life and customs of the people. A collection of 735 specimens was obtained and among them were several new forms of knives, scrapers, and points. These broaden the knowledge relative to the general complex and nature of the material culture.

At the close of the excavating season Dr. Roberts proceeded to North Platte, Nebr., where he inspected a number of collections belonging to local residents and visited the sites where many of them

were found. Through the interest of R. R. Langford, of North Platte, he was able to see a number of locations where Folsom-type objects have been found and add to the series of notes that is being kept on the subject of Folsom distribution. From North Platte Dr. Roberts returned to Washington.

The winter and spring months were devoted to office duties. These included the study of the material obtained during the summer's excavations and the revision and completion for publication of a manuscript on archeological work done in the Whitewater District in eastern Arizona. Besides completely revising the text of this report, 15 additional plans and diagrams were drawn to augment those already prepared. This manuscript was turned over to the editor and is to appear as Bulletin 121 of the Bureau of American Ethnology. With the permission of the Chief of the Bureau and the Secretary of the Smithsonian Institution, several short manuscripts were prepared for publication in anthropological journals and other professional papers.

Dr. Roberts left Washington on June 7, 1938, for Fort Collins, Colo., and again resumed excavations at the Lindenmeier Site. At the close of the fiscal year the diggings had been reopened and a number of specimens obtained. These included several pieces of bone that bear evidence of attempts at engraving designs on them and give some indications of a certain amount of artistic effort on the part of Folsom men.

Dr. J. H. Steward, ethnologist, remained in Washington during the greater part of the fiscal year and completed his final report on the tribes of the Great Basin-Plateau area. This was submitted to the editor and will appear as Bulletin 120 of the Bureau. In anticipation of an extended expedition to South America, Dr. Steward spent considerable time in making preparations for his projected ethnological studies in the western part of South America. On April 20 he left Washington for Ecuador in order to begin this work. The end of the fiscal year found him still in Ecuador working among the highland Indians.

EDITORIAL WORK AND PUBLICATIONS

The editing of the publications of the Bureau was continued through the year by Stanley Searles, editor.

BULLETINS ISSUED DURING THE YEAR

115. *Journal of Rudolph Friederich Kurz*, edited by J. N. B. Hewitt.

116. *Ancient Caves of the Great Salt Lake Region*, by Julian H. Steward.

117. *Historical and Ethnographical Material on the Jivaro Indians*, by M. W. Stirling.

RELEASED FOR PUBLICATION

118. An Archaeological Survey of the Norris Basin in Eastern Tennessee, by Maj. William S. Webb.

The index of Schoolcraft's Indian Tribes has been almost completed.

Work has been done on other manuscripts in the custody of the editor.

Publications distributed totaled 16,569.

LIBRARY

There has been no change in the library staff. Accessions during the fiscal year totaled 395.

Eight new exchanges were added during the year, three of these being large, important sets, one domestic and two foreign.

Library of Congress cards have been obtained for practically all of the new material received as well as for some older items. Analytical entries have been made for all periodical items in the Bureau's field received since April 1936. The depository set of Library of Congress catalog cards is now installed in working order and has proved to be a great help to the staff as well as to those in the library.

The librarian attended the meetings of the Inter-American Bibliographical and Historical Association in February 1938, and made arrangements to exchange cards for South and Central American Indian languages and folk-lore entries with Dr. Boggs, of the University of North Carolina.

ILLUSTRATIONS

Following is a summary of work accomplished by E. G. Cassedy, illustrator:

Line drawings.....	175
Maps	25
Photos retouched.....	28
Lettering jobs.....	96
Plates assembled.....	213
Drawings, etc., prepared for engraver.....	415
Diagrams and charts.....	7
Graphs	6
Mechanical drawings.....	4
Wash drawings.....	1
Total	970

Accession
No.

COLLECTIONS

144,343. One earthenware water jar from the pueblo of Acoma, and one decorated basket made by the Aleuts of southwestern Alaska. (2 specimens.)

Accession
No.

- 146,287. Three figurine pottery fragments and three figurine pottery heads from a railway cut near the Aguan River, Maloa District, north-east Honduras, Central America. Purchased from J. R. Allsopp. (6 specimens.)
- 146,639. Potsherds, arrowpoints, shell bead, and fragment of worked shell from Liberty and Dade Counties, Fla. Collected by M. W. Stirling. (6 specimens.)
- 148,063. Earthenware vessels and fragments from Ulua River, Comayagua River, and Lake Yojoa regions of Honduras, collected in 1936 by Smithsonian-Harvard University Expedition under Dr. W. D. Strong. (93 specimens.)

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Dr. W. D. Strong, anthropologist, resigned August 31, 1937. J. N. B. Hewitt, ethnologist, died October 14, 1937.

Respectfully submitted.

M. W. STIRLING, *Chief.*

DR. C. G. ABBOT,

Secretary, Smithsonian Institution.



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AE *Fifty-sixth Annual Report*

of the

BUREAU OF AMERICAN
ETHNOLOGY



1938-1939



SMITHSONIAN INSTITUTION

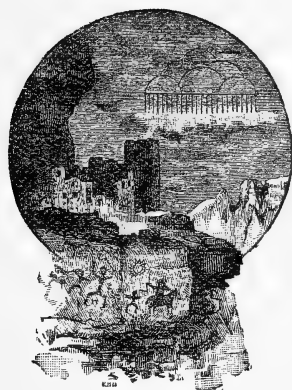
WASHINGTON

D. C.

FIFTY-SIXTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1938-1939



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1940

FIFTY-SIXTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1939, conducted in accordance with the act of Congress of May 23, 1938, which provides "For continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. . . ."

SYSTEMATIC RESEARCHES

M. W. Stirling, Chief, left Washington on December 24 to begin archeological excavations at a large site near the village of Tres Zapotes in southern Veracruz. This work was undertaken in cooperation with the National Geographic Society, which financed the expedition. The permission to conduct the work was obtained earlier in the year from the Mexican Department of Public Education, whose generous cooperation greatly facilitated the work. With Dr. C. W. Weiant as assistant, excavations were begun on January 1 and continued until April 15.

Although detailed results of this first season of work cannot be announced until further study has been made of the material, far-reaching connections are indicated which require careful study of the Maya, Zapotec, Huastec, and Teotihuacan areas. Nine major stone monuments were excavated at the site, including the famous "Cabeza Colosal," and a very large collection of ceramics and figurines was obtained. The most interesting discovery was a stone monument inscribed with an initial-series date. This is in a style closely related to that on the Tuxtla statuette and apparently records a late Baktun 7 date.

At the conclusion of the work the collections were brought to Mexico City where a division was effected with the Mexican Government. A large carved stone box and the dated monument were successfully transported to the National Museum in Mexico City.

The greater part of the year was devoted by Dr. John R. Swanton, ethnologist, to work connected with the researches of the United States De Soto Expedition Commission. During most of October and the first half of November 1938, he was in the field in the interest of that Commission. Visits were made by automobile to points in North and South Carolina and southern Georgia, and a great deal of time was spent in researches in Florida, where he was assisted materially by Dr. Herman Gunter, the State geologist, and J. Clarence Simpson. On leaving Florida, Dr. Swanton visited Dr. Walter B. Jones, member of the Commission from Alabama, at Tuscaloosa, and then went to Aberdeen, Miss., where he was met by Col. John R. Fordyce, the Commissioner from Arkansas. In company with Colonel Fordyce and Dr. W. A. Evans, of Aberdeen, he visited several points in northern Mississippi. Colonel Fordyce then drove him to Helena, Ark., where 2 days were spent in the examination of sites along Crowley's Ridge and on White River. Afterward excursions were made to the Menard Mounds near Little Rock and points along the Little Missouri River. On October 26 Dr. Swanton and Colonel Fordyce joined Miss Caroline Dormon, the Louisiana member of the Commission, and her sister, at Jonesville, La., and spent 2 days on the Ouachita and Tensas Rivers in launches kindly furnished by the Mississippi River Commission and accompanied by some of the Commission's officials. Later Dr. Swanton visited Baton Rouge to confer with members of the geological staff of the Louisiana State University, and with James A. Ford, the archeologist engaged in research work in that State, returning from there to Little Rock and thence to Washington.

The remainder of the calendar year 1938 was devoted to the completion of the report of the Commission, and during the first months of 1939 Dr. Swanton was engaged in reading proof for this report, which appeared in May as House Document No. 71 of the Seventy-sixth Congress. It covers 400 pages and includes 11 maps.

On May 30, by special invitation, Dr. Swanton attended the unveiling of a marker at Shaw's Point, near Bradenton, Fla., commemorative of the landing of De Soto, and during this trip he spoke to audiences at Rollins College, Winter Park, on the Indians of Florida and the work of the De Soto Commission, and before the Kiwanis Club at Bradenton and the Jacksonville Historical Society at Jacksonville on the latter subject.

On December 29, 1938, Dr. Swanton delivered the retiring address as president of section H of the American Association for the Advancement of Science.

The start of the fiscal year found Dr. John P. Harrington, ethnologist, engaged in a study of the northern provenience of the Navaho. This tribe, the largest single-dialect Indian population in the United

States, numbering some 50,000 souls, centers its present habitat in eastern Arizona and western New Mexico and speaks an aberrant form of Western Apache. It is patent that Western Apache, and also Eastern Apache (represented by Kiowa Apache, Jicarilla Apache, and Lipan) are tongues of northern origin, coming from beyond the present northern boundary of the United States, the language-bearing ancestors of these so-called Navaho and Apache peoples having migrated from the north. This migration was far back of the range of history, and the reason for accepting this migration is found in the existence of the surprisingly closely related Athapascan languages occupying all the interior of Alaska and western Canada, a patch near the mouth of the Columbia, and another taking in much of the southern Oregon and northern California coast region.

The study of the northern origin of the Navaho consisted of the assembling of documentation from historical and ethnological sources, interviewing of Indians, and discussions with archeologists and ethnologists engaged in Siberian, Alaskan, Great Basin, High Plains, and Navaho region investigations.

The nearest linguistic sisters of the Navaho language in the north are the Carrier and closely related Chilcotin of the southernmost part of the Northern Interior Plateau mentioned above, and east of them the Sarcee, in the Rockies and the plains just east of the Rockies.

The Smithsonian Institution having come into possession of an unprinted source giving a first-hand account of the Sacramento Valley Indians of California in 1850, including two vocabularies of native Indian languages, from the pen of Prince Paul, educated German traveler and friend of Sutter, the founder of Sacramento, Calif., Dr. Harrington left in May to check this new and important material with native informants. The source consisted of an account of the natives of the "Hok" farm, belonging to Sutter. Dr. Harrington discovered the old Indian rancheria mound called "Hok" on the west edge of the Feather River 7 miles south of Yuba City.

July 1 found Dr. Frank H. H. Roberts, Jr., archeologist, in camp at the Lindenmeier site, north of Fort Collins, in northern Colorado, continuing his excavations in search of additional information on Folsom man, the aboriginal nomad who hunted bison, mammoth, and the American camel on the western plains during the closing stages of the glacial period. The work was carried on until the end of September when digging was stopped for the season. During the course of the summer's investigations 3,500 square feet of the original surface of occupation was uncovered. The overburden ranged from 3 to 8 feet in depth so that a considerable quantity of earth had to be removed before the stratum containing the desired archeological record was reached. Included in the layer were various concentrations of cut and split animal bones, most of them from the extinct *Bison taylora*,

several hearths, places where the stone chippers had made their tools from different kinds of material present in the vicinity, and an assortment of implements. The collection of specimens of the people's handicraft obtained from the season's excavations comprises, in addition to typically fluted points and a series of tools similar to those found in previous years, several new types of stone knives and scrapers and a number of bone fragments bearing portions of simple, incised, geometric decorations. This material serves to broaden the knowledge on the material culture complex characteristic of this group of early American peoples. The digging also produced important evidence on the relation between the occupation level and certain geologic deposits and helped confirm the correlation of the site with definite features dating from the late glacial horizon in that general area.

After the termination of the work at the Lindenmeier site, Dr. Roberts visited places in Nebraska, Wyoming, and Saskatchewan, Canada, where local collectors have found objects attributable to the Folsom or some other, presumably associated, complex. The sites in Nebraska are in the southwestern corner of the State in Chase and Dundy Counties. The locations inspected in Wyoming are in the northeastern part of the State in the vicinity of Sundance. The Saskatchewan sites are near Mortlach and are of interest because they extend the range of this type of material well toward the north along the postulated route of migration of peoples coming from Asia into the New World. From Mortlach, Dr. Roberts returned to Washington and resumed his office duties on November 1.

During the winter months galley and page proofs were read and corrected for the report, *Archeological Remains in the Whitewater District, Eastern Arizona, Part I, House Types*, which appeared as Bulletin 121 of the Bureau of American Ethnology. Manuscript for the second part of this report, describing the artifacts and burials associated with the house remains, was revised, completed, and transmitted to the editor for publication in the bulletin series. An article, *The Folsom Problem in American Archeology*, which appeared in the book *Early Man*, as depicted by leading authorities at the International Symposium at the Academy of Natural Sciences, Philadelphia, March 1937, was revised, augmented with new information and a series of illustrations, and otherwise made suitable for use in the appendix to the Annual Report of the Board of Regents of the Smithsonian Institution for 1938. In addition several short papers on archeological subjects were written for various anthropological journals. Information on Old World archeology was furnished for a radio broadcast on the subject *Pushing Back History*, and this and several other scripts for "The World is Yours" program were read and checked for errors.

In March the Honorable Cordell Hull, Secretary of State, appointed Dr. Roberts to represent the United States on the International Commission for Historic Monuments.

On June 9, 1939, Dr. Roberts left Washington for Colorado, where he resumed excavations at the Lindenmeier site. By the end of the fiscal year he had opened up another portion of the site and was obtaining further data on the Folsom problem.

Dr. Julian H. Steward, anthropologist, spent the months of July and August 1938 in continuing an archeological and ethnological reconnaissance in western South America which was begun during the preceding fiscal year. During this period several Indian villages of the highlands were visited, and a number of archeological sites were examined in both the highland and coastal regions. These researches were undertaken as a preliminary to the editing of the projected Handbook of South American Indians, and on his return to Washington Dr. Steward began preparation of the final plans for the Handbook. These plans were completed during the remainder of the fiscal year, and the project has now been initiated, various contributors having been invited to participate.

Scientific papers prepared by Dr. Steward during the past year are: Anthropological Reconnaissance of Southern Utah, for a Bureau of American Ethnology Bulletin; Anthropological Reconnaissance in South America, for Explorations and Field-Work of the Smithsonian Institution in 1938; Some Observations on Shoshonean Distributions, for the American Anthropologist; The Economic Basis of Changes in the Shoshonean Indian Culture, for the Scientific Monthly; Notes on Hillers' Photographs of the Paiute and Ute Indians taken on the Powell Expedition of 1873, for the Smithsonian Miscellaneous Collections.

Henry B. Collins, Jr., was appointed ethnologist in the Bureau, effective February 1, 1939, by transfer from the Division of Ethnology, United States National Museum. From February 1 to the end of the fiscal year Mr. Collins spent the greater part of his time working over the large and varied collection of artifacts, numbering several thousand specimens, which he excavated in 1936 at Cape Prince of Wales and other prehistoric Eskimo sites in the immediate vicinity of Bering Strait. A statement of the activities of Mr. Collins during the preceding part of the fiscal year is included in the report of the Department of Anthropology of the United States National Museum.

Dr. William N. Fenton, ethnologist, joined the staff of the Bureau of American Ethnology on February 6, 1939, coming to the Bureau from St. Lawrence University. He will continue ethnological

studies among the Iroquois groups in New York and Canada with the aim of cleaning up some of the ethnological problems in the northeastern area that remain from the research of previous students. The Rosenwald Fund of Chicago financed a field trip to the Senecas at Coldspring on the Allegany Reservation in southwestern New York during the interim that followed the end of the first semester at the University and preceded removal to Washington. Dr. Fenton wrote up his field notes on the Seneca Midwinter Festival as a supplement to notes taken in 1934, as soon as he was established at the Bureau. In April and May, Dr. Fenton wrote a monograph on Iroquois Suicide from cases collected during 1935, as a member of the United States Indian Field Service, and parallel cases that occur in the earlier ethnological and historical sources on the Iroquois. He submitted the manuscript for publication in June before leaving for the field. Another manuscript, *Tonawanda Longhouse Ceremonies: Ninety Years After Lewis Henry Morgan*, written in 1936 and recently rewritten, was submitted for publication at the same time.

SPECIAL RESEARCHES

Miss Frances Densmore, a collaborator of the Bureau, in continuation of her study of Indian music, submitted two manuscripts entitled "Choctaw War and Dance Songs" and "Choctaw and Seminole Songs," with phonograph records and transcriptions of 31 Choctaw and 9 Seminole songs. The Choctaw songs were recorded near Philadelphia, Miss., in January 1933, and the Seminole songs were recorded at Brighton, Fla., in February of the same year. Transcriptions and phonograph records of two performances on a Choctaw flute were also submitted. These flutes were played by medicine men during ball games to bring success to one group of players and confuse their opponents. Robert Henry, who recorded the flute playing, is a leading medicine man at the ball games. The 66 Choctaw songs, now in possession of the Bureau, were listed according to their catalog numbers. Fourteen manuscripts on the music of the Winnebago, previously submitted, were combined in one manuscript and retyped preparatory to publication, the retyped material comprising about 300 pages. The 205 Winnebago songs were arranged in final order, and listed according to serial and catalog numbers. The galley and page proof, also the music proof, of Nootka and Quileute Music were read during the year.

During the fiscal year ended June 30, 1939, John G. Carter, a collaborator of the Bureau, devoted considerable time to the ethnographic and Indian sign-language material contained in the manu-

scripts of the late Maj. Gen. Hugh L. Scott, United States Army. These manuscripts, together with other material, were donated to the Bureau by the widow of General Scott. The material donated consisted of newspaper clippings, pamphlets and other printed matter, photographs, and manuscript.

This material was examined, read, and classified. The photographs were turned over to their proper custodian in the Bureau for filing and record. The pamphlets and other printed matter were disposed of in like manner. The manuscript was read and classified in separate filing jackets. Many historical references in these manuscripts were checked for accuracy.

An extensive research was made into the writings of most of the early discoverers and explorers of the North American continent, beginning with the Norsemen, in order to determine the extent to which and the localities in which the sign language was used by the North American Indians. It was ascertained, as far as the records which have been examined to date reveal, that the sign language was confined to the buffalo-hunting tribes of the plains west of the Mississippi River, and to tribes adjacent to the plains who made seasonal hunts into the buffalo country. This confirms the statements made by General Scott in his manuscripts.

EDITORIAL WORK AND PUBLICATIONS

The editing of the publications of the Bureau was continued through the year by Stanley Searles, editor.

BULLETINS ISSUED DURING THE YEAR

118. An Archaeological Survey of the Norris Basin in Eastern Tennessee, by William S. Webb.

119. Anthropological Papers, Nos. 1-6. No. 1, A Preliminary Report on Archeological Explorations at Macon, Ga., by A. R. Kelly. No. 2, The Northern Arapaho Flat Pipe and the Ceremony of Covering the Pipe, by John G. Carter. No. 3, The Caribs of Dominica, by Douglas Taylor. No. 4, What Happened to Green Bear Who Was Blessed With a Sacred Pack, by Truman Michelson. No. 5, Lemhi Shoshoni Physical Therapy, by Julian H. Steward. No. 6, Panattibiji', an Owens Valley Paiute, by Julian H. Steward.

120. Basin-Plateau Aboriginal Sociopolitical Groups, by Julian H. Steward.

121. Archeological Remains in the Whitewater District, Eastern Arizona. Part I, House Types, by Frank H. H. Roberts, Jr.

122. An Archaeological Survey of Wheeler Basin on the Tennessee River in Northern Alabama, by William S. Webb.

123. Anthropological Papers, Nos. 7-12. No. 7, Archeological Investigations in the Corozal District of British Honduras, by Thomas and Mary Gann. No. 8, Linguistic Classification of Cree and Montagnais-Naskapi Dialects, by Truman Michelson. No. 9, Sedelmayr's Relation of 1746, translated and edited by

Ronald L. Ives. No. 10, Notes on the Creek Indians, by J. N. B. Hewitt, edited by John R. Swanton. No. 11, The Yaruros of the Capanaparo River, Venezuela, by Vincenzo Petruccio. No. 12, Archeology of Arauquin, by Vincenzo Petruccio.

IN PRESS

101. War Ceremony and Peace Ceremony of the Osage Indians, by Francis La Flesche.

124. Nootka and Quileute Music, by Frances Densmore.

125. Ethnography of the Fox Indians, by William Jones, edited by Margaret Wepley Fisher.

The Index to Schoolcraft's Indian Tribes has been completed. Publications distributed totaled 19,527.

LIBRARY

The library continued under the direction of Miss Miriam B. Ketchum, librarian. Accessions during the year totaled 223.

The exchange list has been completely revised and brought up to date, and seven new exchange sets have been added.

The rare book section was finished early in the fiscal year, and the rarest items and many others of importance have been shelved in it. More than half of these books have been recataloged and classified and permanently labeled and shelved.

All the publications of North American societies and institutions have been sorted and all matter not in the field of the Bureau discarded as far as possible.

The librarian attended the meetings of the Inter-American Bibliographical and Historical Society at Washington, D. C., in February, and the Special Libraries Association at Baltimore in May.

The usual routine work of accessioning and cataloging new material and entering new periodicals received has been kept up to date.

ILLUSTRATIONS

Following is a summary of work accomplished by E. G. Cassedy, illustrator:

Topographic surveying.....	1
Plates prepared.....	94
Line drawings.....	114
Photographs retouched.....	44
Lettering jobs.....	126
Graphs.....	12
Maps.....	18
Mechanical drawings.....	2
Engrossing jobs.....	1
Total.....	412

COLLECTIONS

Accession
No.

- 148,708. Potsherds, figurine fragments, and other artifacts from various sites in Mexico, collected in 1938 by M. W. Stirling for the Bureau. (51 specimens.)
- 152,153. Male skeleton from deep trench west of Mound A, Shiloh National Monument, Tenn., and a miscellaneous archeological collection, obtained in the course of excavations conducted by F. H. H. Roberts, Jr., during the winter of 1933-34 in cooperation with the Civil Works Administration.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Dr. Truman Michelson, ethnologist, died July 26, 1938. On February 1, 1939, Henry B. Collins, Jr., was appointed by transfer from the United States National Museum to fill the vacancy caused by the death of Dr. Michelson. Dr. William N. Fenton was appointed as ethnologist on February 6, 1939. H. B. Chappell resigned as clerk in the library of the Bureau on October 4, 1938, and Walter B. Greenwood was appointed on November 1, 1938, to fill this vacancy. Stanley Searles, editor, retired on June 30, 1939.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,

Secretary, Smithsonian Institution.





Fifty-seventh Annual Report
of the
**BUREAU OF AMERICAN
ETHNOLOGY**

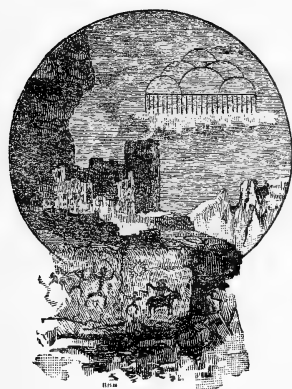
1939-1940



SMITHSONIAN INSTITUTION
WASHINGTON
D. C.

FIFTY-SEVENTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY
TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1939-1940



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1941



FIFTY-SEVENTH ANNUAL REPORT

OF THE

BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1940, conducted in accordance with the act of Congress of March 16, 1939, which provides "* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *"

SYSTEMATIC RESEARCHES

M. W. Stirling, Chief of the Bureau, left Washington on December 26 to continue his archeological excavations in southeastern Mexico. Work was continued at Tres Zapotes until April 20. Two additional expeditions were made, one to Cerro de Mesa on the Rio Blanco in the State of Veracruz, and the other to La Venta in northern Tabasco. As last year, the work was undertaken in cooperation with the National Geographic Society. Dr. Philip Drucker accompanied Mr. Stirling as assistant archeologist.

As a result of the second season of work, the chronology of the Tres Zapotes site has now been satisfactorily determined. Indications are that the site was occupied from a date before the beginning of the Christian era but that it was abandoned sometime before the beginning of the Spanish conquest.

At Cerro de Mesa, 20 carved stone monuments were located and photographed, including one with an initial series date in the Maya calendar. This date reads 9-1-12-14-10, or 1 Oc 3 Uyab. The discovery of this monument raises to three the number of initial series now known from the State of Veracruz. Although a very early Baktun 9 date, it is later than Stela C from Tres Zapotes and the Tuxtla statuette. Of the 20 monuments at Cerro de Mesa, 12 are stelae.

Twenty monuments were also unearthed at La Venta, including five colossal heads, several beautifully carved altars, and some stelae.

At the conclusion of the work the collections were brought to Mexico City and a division of the material was made by the department of archeology of the Mexican Government, whose splendid cooperation did much to facilitate the work in the field.

Mr. Stirling attended three anthropological conferences as a delegate of the United States Government, these being the Twenty-seventh Session, International Congress of Americanists, held at Mexico City, August 5-15, 1939; the First Inter-American Congress on Indian Life, at Patzcuaro, Michoacán, April 14-24, 1940; and the Eighth American Scientific Congress, in Washington, May 10-21, 1940.

Dr. J. R. Swanton, ethnologist, devoted the greater part of the fiscal year to the assembling of material bearing on the ethnology and early history of the Caddo Indians, former inhabitants of northwestern Louisiana, southwestern Arkansas, northeastern Texas, and southeastern Oklahoma. This now covers about 700 typewritten pages including copies of original Spanish and French texts. He rendered assistance to various local organizations in preparing for the placing of markers along the trail followed by Hernando de Soto and celebrations connected with them. Investigations were undertaken for the United States Board on Geographical Names, of which Dr. Swanton is a member. A bulletin by him entitled "Linguistic Material From the Tribes of Southern Texas and Northeastern Mexico" is now in page proof.

Dr. Swanton was much gratified at the kind recognition tendered by his anthropological associates this year on the completion of 40 years' service in the Bureau and the Institution in having dedicated to him volume 100 of the Smithsonian Miscellaneous Collections entitled "Essays in Historical Anthropology of North America."

At the beginning of the fiscal year, Dr. John P. Harrington, ethnologist, was engaged in field studies at Anadarko and Apache, Okla., on the Kiowa Apache Tribe, in reality a variety of Lipan and not Apache Indians according to language, and possibly identical with the "Palomas" of early Spanish archives of New Mexico. These peoples, which can well be termed "Lipanan" from the Lipan, one of the tribes, have become extinct or have been shoved far from their former ranges, with the sole exception of the Kiowa Apache, which, because of alliance with the powerful Kiowa Tribe, succeeded in remaining in the region although assimilating the Kiowa culture.

Returning to Washington, Dr. Harrington proceeded in the latter part of July to Window Rock, Ariz., location of the administrative headquarters of the Navaho Tribe. Just as the Kiowa Apache show a subtype of western Plains culture submerge to that of

the Kiowa, so the Navaho show Great Basin culture with a varnish of many Pueblo features, and study proves that these Pueblo features are in every case directly derived from some particular Pueblo with which the Navaho have had century-long contact. For instance, the Navaho of Ramah derive their Pueblo features from Zuñi. The most interesting discovery of all was the prominence of the buffalo in Navaho ceremony, in which the buffalo plays a role as large as among the Pueblos.

In the case of both the Kiowa Apache and Navaho, language study is the most practical means of proving that the language-bearing ancestors of these tribes came from the north, where similar languages are still spoken, occupying the interior of Alaska and of western Canada.

Proceeding October 25 to the Chipewyan of eastern Alberta, Canada, Dr. Harrington found them to consist of a southern-projecting tongue of the language of the great Athabaska Lake of northern Alberta, which derives its name from Algonquian Cree Adhapas-kaaw, meaning "much grass" and applied originally to the Peace River Delta at the western end of the lake. Chipewyan means "pointed skins," referring to an old habit of dress. The Chipewyan language proved to be surprisingly close to Navaho in vocabulary and construction.

Proceeding to the Sarcee language of southern Alberta, Dr. Harrington encountered another closely related tongue, and one which is most nearly affiliated with the Beaver and the Sekeneh, two dialects that lie north of the Sarcee. Dr. Harrington learned the tradition that the Sarcee and Beaver were originally one people but that in migrating southward across a frozen lake, the water monster became angered and broke the ice, those Indians on the northern side becoming the Beaver and those having crossed to the southern side becoming the Sarcee. The Sarcee were found to have adopted the culture of the neighboring Blackfeet, and the meaning of the name of the Blackfeet, Ayaatciyiiniw, was found to mean "ugly enemy."

The Carrier, Chilcotin, and Nicola dialects were reached in December. These are located on the upper Fraser River, especially about the great lakes at the head of this stream.

The Sekeneh were also reached in British Columbia and the name was found to mean "Rocky Mountain Indian."

Returning to Washington, Dr. Harrington proceeded in March to the study of the Tlinkit Indians of southeastern Alaska, finding these to be related to the Navaho, in a close relationship which cannot mean many centuries of separation.

Dr. Harrington then proceeded in May to the study of the Atchat, or Eyak, Tribe, which was found to have occupied the entire eastern half of the Gulf of Alaska, a stretch of coast 350 miles long, extending

from Prince William Sound in the west to Latuya Bay in the east. This tribe has earlier been called Ugalenz and Eyak, but the real name of the tribe has never been known, Atchat meaning "on this side" or "opposite," referring to location on the Gulf of Alaska and opposite the islands. This language also proved to be closely related to the Navaho, and, as might be expected, more closely related to the languages of British Columbia and the Navaho than is the island language.

Dr. Harrington returned to Washington on June 29.

At the beginning of the fiscal year, July 1, Dr. Frank H. H. Roberts, Jr., archeologist, was engaged in excavating at the Lindenmeier site in northern Colorado. The investigations were continued through July and August and were brought to a close for the season on September 15. The area under examination was a portion of the Folsom camp site that has occupied a Bureau of American Ethnology-Smithsonian Institution Expedition's attention for several seasons. The 1939 excavations consisted of the removal of the overburden, ranging from $3\frac{1}{2}$ to $5\frac{1}{2}$ feet in thickness, from some 1,540 square feet of the old area of occupation, digging a series of 10 test trenches in unsampled parts of the site, and prospecting in outcroppings of the archeological layer in the banks of a deep ravine that traverses a portion of the site. The excavations in the camp remains produced more specimens than any previously made in areas of comparable size. The collection of artifacts includes typically fluted Folsom points, fluted knives, knives made from the flakes removed from the faces of the points in producing the channels, other kinds of flake knives, a variety of scrapers including several forms of the spokeshave type, flakes with small points used for marking on bone and wood, hand-hammer stones and large choppers, red and yellow ochers used for pigments, bone punches and awls, pieces of decorated bone from objects of unknown form and function, and tubular bone beads. The latter are the first to be found in the Folsom Complex. They were made from shafts of long bones. Unfortunately, the criteria for identification were removed in the process of manufacture, but they seem to be rabbit and bird. One of these specimens was decorated with a series of short parallel lines cut into its surface.

Dr. Roberts returned to the office in Washington on October 1. During the fall and winter months he read galley and page proofs on the report *Archeological Remains in the Whitewater District, Eastern Arizona. Part II. Artifacts and Burials*, which appeared as Bulletin 126 of the Bureau of American Ethnology. He also served as technical advisor for "The World is Yours" programs, "Cortez, the Conquistador" and "Pompeii Lives Again," and wrote the article for "The World is Yours" pamphlet on Pompeii. He also prepared a manuscript on the subject *Developments in the Problem*

of the North American Paleo-Indian. Galley and page proofs were read and corrected for this paper, which appeared in the *Essays in Historical Anthropology of North America*, volume 100, Smithsonian Miscellaneous Collections. Special papers on archeological subjects were prepared and presented before the Pennsylvania State Archeological Society, the American Anthropological Association, and the Eighth American Scientific Congress.

Dr. Roberts left Washington, May 26, for Colorado and resumed investigations at the Lindenmeier site. While the preliminary excavations were under way, a number of places in that vicinity were visited for the purpose of checking purported finds of Folsom material. Work at the Lindenmeier site was in full progress at the close of the fiscal year.

As editor of the *Handbook of South American Indians*, Dr. Julian H. Steward, anthropologist, in consultation with leading authorities on South American anthropology, drew up a working outline for this project. A two-volume, 2,000-page work to be published in 5 years, the *Handbook* will contain articles by specialists on the various subjects. The volume of essays in honor of Dr. Swanton, for which Dr. Steward served as technical editor, was pushed through to a successful conclusion and published on May 25, 1940. Several studies of Shoshonean archeology and ethnology were written and published.

May 26 to July 1 was spent by Dr. Steward among the Carrier Indians of British Columbia. Records of land tenure, subsistence activities, and sociopolitical changes during five generations were procured from the Stuart Lake and neighboring Carrier. It was found that within the framework of aboriginal land utilization, the sociopolitical structure had shifted from a band organization to a matrilineal clan and potlatch system derived from the coast. In historic times, the latter had given way before a patrilineal family system. Records of general ethnography, 100 specimens of native artifacts, and over 50 specimens of plants used in aboriginal times were also obtained.

In July 1939 a Latin-American bibliographic conference at Ann Arbor, Mich., was attended. In December 1939 two papers were read before the American Anthropological Association in Chicago. In May 1940 Dr. Steward served as secretary of the Anthropological Section of the Eighth American Scientific Congress, meeting in Washington.

Henry B. Collins, Jr., ethnologist, continued working over the material which he excavated in 1936 at prehistoric Eskimo village sites around Bering Strait. The collection from one of the sites—Kurigitavik, at Cape Prince of Wales—consists of several thousand artifacts of ivory, bone, stone, clay, wood, and baleen and provides a detailed

picture of prehistoric Eskimo culture of the intermediate Thule-Punuk stage, the age of which may be estimated at around a thousand years. The material from Kurigitavik, together with that from two earlier sites, has provided needed information on the transition from the Birnirk stage to the Thule, and collections from several later sites reveal the changes leading up to the culture of modern times.

Manuscripts completed during the year included a general paper summarizing the archeological evidence bearing on the origin of the Eskimo and the cultural position of this group in relation to neighboring peoples in Asia and America; and shorter papers on Eskimo art, on the voyages of Vitus Bering (for the Smithsonian radio series), and on prehistoric Indian crania from the Southeast.

Early in July 1939 Dr. William N. Fenton, associate anthropologist, left for Salamanca, N. Y., to conduct ethnobotanical studies among the Iroquois Indians of New York and Canada. He visited the Senecas of Allegany and Cornplanter Reservations, in southwestern New York and Pennsylvania, and the Mohawks of St. Regis Reservation, N. Y., and Caughnawaga, Province of Quebec. He called briefly on the Hurons of Lorette and the Mohawks of Oka, Lake of the Two Mountains, near Montreal. At Ottawa he studied the extensive catalog of Iroquois ethnological photographs in the National Museum of Canada. The month of August was passed among the Iroquois of Six Nations Reserve in Ontario, where he worked with Simeon Gibson, interpreter to the late J. N. B. Hewitt. About a hundred herbarium specimens were collected; when identified at the National Herbarium, these proved to be largely duplicates of medical plants gathered in previous years of field work among the Senecas. Moreover, interesting similarities of plant use and terminology were noted among Seneca, Mohawk, and Cayuga-Onondaga remnants who now live on widely separated reservations. Such resemblances suggest older basic Iroquois botanical concepts and medical practices. Photographs illustrating various activities in Iroquois herbalism comprise part of 100 negatives that were taken in the field. The early notes of F. W. Waugh were reviewed with Mohawk and Cayuga informants, and some paradigms in the several Iroquois dialects were recorded for comparative purposes. Returning to Allegany for the Green Corn Festival, Dr. Fenton reached Washington in mid-September.

During the winter's office work, Dr. Fenton read in the historical literature and located towns of the several Iroquois bands at successive periods in their history, with a view to outlining the major cultural problems arising from Iroquois tribal movements and conquests. This study, now published, attempts to begin for the Northeast the type of systematic approach that Dr. Swanton has accomplished for the Southeast. Dr. Fenton also published *A Further Quest for Iroquois*

Medicines, in Explorations and Field-Work of the Smithsonian Institution in 1939, and An Herbarium from the Allegany Senecas, in The Historic Annals of Southwestern New York. Several lectures on various aspects of Iroquois culture were delivered to Washington audiences, and in June, Dr. Fenton addressed a regional meeting of botanists at the Allegany School of Natural History on Iroquois Ethnobotany.

On May 2, 1940, Dr. Fenton again left for Salamanca to resume field work among the Seneca. Working primarily at Allegany Reservation, he also visited Tonawanda, collecting early spring medicinal plants. This season, work with informants was combined with a project to study Iroquois masks and ceremonial equipment in museums located near the Iroquois. At the close of the fiscal year, the extensive Converse collections in the New York State Museum (Albany) and Montgomery County Historical Society (Fort Johnson), and the Boyle and Chiefswood collections in the Royal Ontario Museum of Archaeology (Toronto) were measured and photographed. The pictures have proved to be useful in eliciting new material from informants and promise future usefulness in establishing local types of carving. A complete record of the mask-making technique has been made together with photographs of crucial stages in the process, and the rituals of several shamanistic societies have been taken with a flash camera for the first time. Dr. Fenton was engaged in field work at the close of the fiscal year.

SPECIAL RESEARCHES

Miss Frances Densmore, a collaborator of the Bureau, continued her study of Indian music chiefly by completing manuscripts for publication. A trip was made to Wisconsin Dells, Wis., to confer with Evergreen Tree, a Cochiti Indian, and to obtain further information concerning songs he recorded several years previously. Additional information concerning the peyote cult was also received from Winnebago informants in Wisconsin and Minnesota.

Nine manuscripts on pueblo music were recast and combined in a manuscript entitled "Music of Acoma, Isleta, and Cochiti Pueblos, New Mexico." Four manuscripts on "Choctaw Music," previously submitted, were similarly combined. The manuscript on "Winnebago Music" was completed, and a portion of the section on the peyote cult was restudied, extended, and retyped. These three manuscripts are now ready for publication.

Eleven manuscripts on the music of the Seminole in Florida were combined in a tentative manuscript of more than 300 pages. The number of transcribed Seminole songs now in possession of the

Bureau is 173 and these were arranged in a tentative order, corresponding to the order in the manuscript. About 70 Seminole songs, recorded in 1932 and 1933, have not yet been submitted to the Bureau. Work was begun on this material and a few of the songs were transcribed.

A peculiar custom observed in a few of the oldest Choctaw and Seminole songs consists in an embellishment of the melody in repetitions. It was found that the several renditions differed from one another and that the Indians were able to sing the simple melody, without the embellishments. These consisted in the addition of short, unimportant tones, without changing the trend of the melody. The custom resembles the improvisation which was noted in the songs of the Tule Indians of Panama and is in contrast to the exact repetitions of songs by northern tribes of Indians. A similar custom exists among Negroes on the Island of Trinidad in the British West Indies, and has been called Calypso.

According to Louis C. Elson (*Curiosities of Music*, p. 278, Oliver Ditson & Co., Boston, 1880), "The power of improvisation which is so well developed in the African Negro, is fully sustained by his descendants * * *."

Miss Densmore presented to the Bureau the original manuscript of an Onondaga Thanksgiving Song, written down for her in 1903 at Syracuse, N. Y., by Albert Cusick, a prominent Onondaga from the reservation near that city. The native words with their translation were also obtained. The song is in two parts, the lower being rhythmic and resembling a vocal accompaniment to the melody.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau has continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued three bulletins, as follows:

Bulletin 101. War ceremony and peace ceremony of the Osage Indians, by Francis La Flesche. vii+230 pp., 13 pls., 1 fig.

Bulletin 124. Nootka and Quileute music, by Frances Densmore. xxvi+358 pp., 24 pls., 7 figs.

Bulletin 125. Ethnography of the Fox Indians, by William Jones. Edited by Margaret Welpley Fisher. ix+156 pp.

The following bulletins were in press at the close of the fiscal year:

Bulletin 126. Archeological remains in the Whitewater District, Eastern Arizona. Part II. Artifacts and burials, by Frank H. H. Roberts, Jr. With appendix, Skeletal remains from the Whitewater District, Eastern Arizona, by T. D. Stewart.

Bulletin 127. Linguistic material from the tribes of southern Texas and north-eastern Mexico, by John R. Swanton.

Bulletin 128. Anthropological papers, numbers 13-18.

- No. 13. The mining of gems and ornamental stones by American Indians, by Sydney H. Ball.
- No. 14. Iroquois suicide: A study in the stability of a culture pattern, by William N. Fenton.
- No. 15. Tonawanda Longhouse ceremonies: Ninety years after Lewis Henry Morgan, by William N. Fenton.
- No. 16. The Quichua-speaking Indians of the Province of Imbabura (Ecuador) and their anthropometric relations with the living populations of the Andean area, by John Gillin.
- No. 17. Art processes in birchbark of the River Desert Algonquin, a circumboreal trait, by Frank G. Speck.
- No. 18. Archeological reconnaissance of southern Utah, by Julian H. Steward.

Bulletin 129. An archeological survey of Pickwick Basin in the adjacent portions of the States of Alabama, Mississippi, and Tennessee, by William S. Webb and David L. De Jarnette. With additions by Walter P. Jones, J. P. E. Morrison, Marshall T. Newman and Charles E. Snow, and William G. Haag.

Bulletin 130. Archeological investigations at Buena Vista Lake, Kern County, California, by Waldo L. Wedel. With appendix, Skeletal remains from Buena Vista sites, California, by T. Dale Stewart.

Bulletin 131. Peachtree Mound and village site, Cherokee County, North Carolina, by Frank M. Setzler and Jesse D. Jennings. With appendix, Skeletal remains from the Peachtree Site, North Carolina, by T. Dale Stewart.

Publications distributed totaled 13,984.

LIBRARY

There has been no change in the library staff during the fiscal year. Accessions during the fiscal year totaled 364.

The section of North American periodicals has been reclassified and reshelfed and a temporary shelf-list made. Permanent catalog and shelf-list cards have been made for part of this material.

The library staff has relabeled and reshelfed 4,687 books. All these are now in the Library of Congress classification. As of June 30, 1940, practically all North American material has been reclassified and reshelfed, almost all Central and South American material, and about two-thirds of the sections on ethnology other than American. Library of Congress cards have been ordered when available for all books reclassified which did not already have them. Practically all these cards have been prepared and filed in the catalog.

The Librarian attended the meetings of the Inter-American Bibliographical and Library Association at Washington, D. C., in February and the meetings of the Eighth American Scientific Congress at Washington in May.

ILLUSTRATIONS

Following is a summary of work accomplished during the fiscal year by E. G. Cassedy, illustrator:

Line drawings-----	152	Photographs retouched-----	35
Stipple drawings-----	4	Negatives retouched-----	25
Wash drawings-----	14	Charts-----	3
Lettering jobs-----	184	Mechanical drawings-----	5
Plates assembled-----	54		
Graphs-----	22	Total-----	515
Maps-----	17		

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Miss M. H. Palmer was appointed on July 1, 1939, as editor to fill the vacancy caused by the retirement of Stanley Searles. Miss Ethelwyn E. Carter, junior stenographer, resigned on September 17, 1939, and Mrs. Catherine M. Phillips was appointed on November 6, 1939, to fill this vacancy.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,

Secretary, Smithsonian Institution.



1940-1941

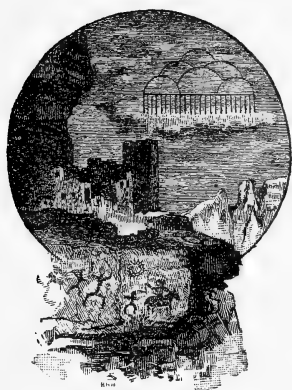


SMITHSONIAN INSTITUTION
WASHINGTON
D. C.

FIFTY-EIGHTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1940-1941



UNITED STATES
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WASHINGTON : 1942

APPENDIX 5

REPORT ON THE BUREAU OF AMERICAN ETHNOLOGY

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1941, conducted in accordance with the act of Congress of April 18, 1940, which provides "* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *"

SYSTEMATIC RESEARCHES

M. W. Stirling, Chief of the Bureau, left Washington on December 29 to continue his archeological excavations in southern Mexico. Intensive excavations were begun at the site of Cerro de las Mesas on the Rio Blanco in the state of Veracruz, this site having been visited the preceding season. In addition, another expedition was made to the site of Izapa in the southwestern part of the state of Chiapas. As in the 2 preceding years, the work was undertaken in cooperation with the National Geographic Society. Dr. Philip Drucker again accompanied Mr. Stirling as assistant archeologist.

At Cerro de las Mesas 20 carved stone monuments were unearthed and photographed, several mounds were cross-sectioned, and a number of stratigraphic trenches dug on various sections of the site. The stratigraphic work proved unusually successful and extends the cultural column for this part of Veracruz to a much later date than did the excavations at Tres Zapotes. Two initial series dates were deciphered at Cerro de las Mesas, one being in the 1st katun, the other in the 4th katun, of baktun 9. Another stone monument at this site was of considerable interest because of its similarity to the famous Tuxtla statuette. Large quantities of jade were found including one cache containing 782 specimens.

At Izapa a large number of stelae, most of them with altars, were excavated and photographed. This site is important because of its location, which makes it an interesting link between the west coast of Guatemala and the isthmian region of southern Mexico.

At the conclusion of the work at Cerro de las Mesas at the end of April, the collections were brought to Mexico City where Dr. Drucker remained to work with them.

During the year Dr. John R. Swanton, ethnologist, employed most of his time in completing an extensive report on the Indians of the Southeast, upon which work had been done during several past years, and which covers about 1,500 typewritten pages. This is now ready for final copy and editing.

The bulletin entitled "Source Material on the Ethnology and History of the Caddo Indians," upon which he was at work last year is now in galley proof. It will cover about 350 printed pages. A brief contribution by Dr. Swanton entitled "The Quipu and Peruvian Civilization" has been accepted for publication in a forthcoming bulletin of anthropological papers and is now in the hands of the printer.

Early in the year the bulletin prepared by Dr. Swanton entitled "Linguistic Material from the Tribes of Southern Texas and Northeastern Mexico," was completed and distributed. It contains all of the fragments of the Coahuiltecan, Karankawan, and Tamaulipekan tongues known to be in existence, and covers 145 pages.

Considerable time has also been devoted by Dr. Swanton to answering letters, including particularly extension of advice regarding the placing of markers along the route pursued by Hernando de Soto and work for the United States Board on Geographical Names.

At the beginning of the fiscal year Dr. John P. Harrington, ethnologist, was engaged in working over Navaho materials and those of the closely related Tlingit language of Alaska. Recent field studies had proved that something like 200 words of Navaho and Tlingit are almost the same despite the 2,000-mile separation of the two languages. Sometimes the same word was found to be applied to two very different organisms; for instance, what is crab apple in the north is cactus in the south (spininess being the trait which these two plants evidently have in common), and jack pine in the north was found to be juniper in the south.

Tlingit was copiously recorded in southeastern Alaska, and the Ugalenz language, related to the Tlingit and to the Navaho, was discovered and studied. The Ugalenz formerly occupied 350 miles of southeastern Alaska coast, from Prince William Sound in the west to Latuya Bay in the east.

The origin of the name Sitka, the old Russian capital of Alaska, was discovered. The name means "On the oceanward side of Baranov Island." Shee is the name of Baranov Island, and Sitka is situated on its oceanward side.

Leaving in August for Gallup, N. Mex., Dr. Harrington worked on many parts of the Navaho Reservation, finding a surprising uniformity in dialect. This uniformity must have arisen from a jumbling together of earlier Navaho dialects when the Navahos were in

captivity in eastern New Mexico in 1867 and 1868. During this captivity, dialects were evidently jostled together, and resettlement by the United States Government further dislocated them.

Field work during the latter part of the summer was done with more than 10 of the leading Navaho interpreters. In a tribe of more than 45,000 population, there are many educated speakers, including university graduates, and with them were explored special features of the language which could not have been obtained from the tongues of poor and uneducated tribes without much greater expenditure of time.

The Navaho language was found to have only 4 vowels and 34 consonants, making it a true consonantal language. The sounds of Navaho were found to be almost identical with those of the other languages of the Southwest, for instance, with those of the neighboring Tewa language. Also many words were found to be the same as in Tewa. Navaho was found to have, for practical purposes, a high and a low tone, and a falling and rising tone only on long vowels and diphthongs. One of the most peculiar developments to be found in any language is the hardening in Navaho of almost any consonant by placing a sound of German *ch* after it if it is voiceless, and of open *g* (*gh*) after it if it is voiced. There are also traces of a hardening of *l* to *n*, and the like.

Returning to Washington late in the fall, Dr. Harrington continued his study of the Navaho, until it now constitutes a finished manuscript of more than 1,200 pages. Throughout the work there has been a constant revelation that Navaho and related languages are not as unlike other American Indian languages as has been thought by early vocabulary makers and classifiers.

At the beginning of the fiscal year, July 1, 1940, Dr. Frank H. H. Roberts, Jr., was engaged in a continuation of excavations at the Lindenmeier site, a former Folsom camping ground, in northern Colorado. From August 1 to 31 he was on leave and during that period, in accord with the Smithsonian Institution's policy of cooperation with other scientific organizations, directed the excavation program of the advanced students at the University of New Mexico's Chaco Canyon Research Station.

From Chaco Canyon, N. Mex., Dr. Roberts went to Boulder City, Nev., to inspect a large cave located in the lower end of the Grand Canyon of the Colorado River at the upper reaches of Lake Mead. The trip to the cave was made by motorboat from Pierce's Ferry in company with officials of the National Park Service's Boulder Dam Recreational Area. Rampart Cave is situated in the south wall of the canyon at the top of a steep talus 600 feet above the present water level. It is of unusual interest because of its extensive deposits of

sloth remains and of the bones from large creatures that preyed on the sloth, and the possibility that it may provide evidence of human contemporaneity with such extinct animal forms in that area. Plans and methods for a program of excavation were discussed and various suggestions were made concerning the advisability of providing an exhibit in situ for visitors to the Boulder Dam Recreational Area.

From Boulder Dam, Dr. Roberts returned to the Lindenmeier site where he continued his investigations until the end of September when the project was brought to a close. During the six seasons of intensive exploration of this Folsom site and the adjacent area much new and valuable information on the subject of early occupation of North America was obtained. From the large series of specimens collected it will be possible to draw comprehensive conclusions relative to the material culture and economic status of the aboriginal peoples inhabiting that portion of the country during the closing days of the last Ice Age, and in general to broaden the knowledge on early stages in New World history.

Dr. Roberts returned to Washington in October. He spent the autumn and winter months working on the material from the Lindenmeier site, preparing the manuscript for his report on the investigations there, in writing short articles for publication in various scientific journals, in identifying numerous archeological specimens sent in from all parts of the country by interested amateurs, and in furnishing information on many phases of New World archeology. Plans and preparations were made for an expedition to the Coclé region in the province of Penonome, Panama, but, because of the last-minute development of an insuperable combination of adverse circumstances, the proposed investigations had to be abandoned.

On May 15, 1941, Dr. Roberts went to Bedford, Va., to initiate excavations at the Mons site near the Peaks of Otter where the late D. I. Bushnell, Jr., had found artifacts suggestive of a much earlier aboriginal occupation of the area than previously had been supposed. Construction work on the Blue Ridge Parkway had destroyed much of the site, but a series of test trenches dug in various undisturbed remnants established the fact that it had once been an Indian camping place, possibly a village site of late protohistoric times. However, there was no evidence of its having been used by older groups comparable to the early hunting peoples of the western plains.

On the completion of the work at the Mons site, Dr. Roberts returned to Washington and on June 11 left for San Jon, N. Mex. Camp was established on the rim of the Staked Plains 10½ miles south of that town and excavations were started at a site where material suggestive of another phase of early man in North America, the so-called Yuma, has been found. The location is in a shallow basin that appears to

have been an old, filled-in lake bed. Heavy erosion in recent years started a series of ravines and gullies and exposed extensive deposits of bones. Stone implements found near some of these outcroppings indicate the possibility that many of the creatures were killed by aboriginal hunters and that an association of man-made objects and bones from extinct species of animals can be established. Bison, camel, and mammoth bones, as well as those from smaller and as yet unidentified mammals, occur in the site. Material in the fill in the old lake bed probably can be correlated with other geologic phenomena of established age. Hence, the determination of contemporaneity between the artifacts, animal remains, and lake deposits would constitute an important addition to the evidence on early occupation in the New World. There is also a possibility that the site may contribute information on the subject of relationships between some of the different older cultural remains. At the close of the fiscal year Dr. Roberts and his party were well started on the problem of the San Jon site.

The beginning of the fiscal year found Dr. Julian H. Steward, anthropologist, in British Columbia completing researches on aboriginal Carrier Indian ethnography and on ecological aspects of recent changes in Carrier socio-economic culture at Fort St. James and neighboring villages. While here a collection was made of more than 100 Carrier specimens of material culture, and of more than 50 ethnobotanical specimens. At this time several pit-lodge sites were examined. From here Dr. Steward proceeded to Alaska, and then by plane from Ketchikan to an island off the coast where he investigated a burial site reported by Commander F. A. Zeusler, of the Coast Guard, and Ranger Lloyd Bransford, of the United States Forest Service. Accompanied by the latter, he procured specimens of several skeletons, fragments of carved burial boxes and other materials, and a mummified body in excellent preservation. The body was dressed in buckskin, wrapped in a cedar mat, and deposited in a cedar box. All specimens were brought back by plane to Ketchikan and shipped to the Smithsonian Institution. From Alaska Dr. Steward went to Berkeley, Calif., to hold consultations on the Handbook of South American Indians, which is being prepared for the Smithsonian Institution. From there he proceeded to Albuquerque and Chaco Canyon, N. Mex., for further consultations and to attend the Coronado Quatrocentennial and the Chaco conference, finally arriving in Washington late in August.

The remainder of the year was devoted mainly to editorial and organizational work on the Handbook of South American Indians, and work on the project was actually initiated, \$6,000 having been made available for this purpose by special appropriation for cooperation with the American republics through the Department of State's Inter-

departmental Committee. The collaboration of 33 contributors, each a specialist in some phase of South American anthropology, was arranged. Work accomplished during the year included completion of manuscripts by Dr. Robert H. Lowie and Dr. Alfred Métraux totaling more than 150,000 words; completion of a new base map drawn from the American Geographical Society's 1:1,000,000 sheets, and of four new maps showing respectively the vegetation, climates, physical features, and topography of South America; compilation of a preliminary bibliography of nearly 2,000 items; substantial progress on many other manuscripts; and integration of the Handbook plan with research activities of many other institutions in different countries. Arrangement was made to engage the services of Dr. Métraux on full-time basis as assistant editor in the fiscal year 1941-42. The services of a secretary were had for the Handbook during three months of 1941.

During the fall Dr. Steward acted as chairman of the Program Committee of the American Anthropological Association, arranging the program for the Christmas meetings in Philadelphia. He also served on the Committee on Latin American Anthropology of the National Research Council and accepted membership on the Scientific Advisory Committee of the Pan American Trade Committee.

The following scientific papers were published: Archeological Reconnaissance of Southern Utah, *Bur. Amer. Ethnol. Bull.* 128, pp. 275-356; Nevada Shoshone, in *Univ. California Culture Element Distributions*; several short papers on the Carrier Indians; a description of the Handbook of South American Indians for the *Boletín Bibliográfico de Antropología Americana*. An article was prepared for *American Antiquity* on The Direct Historic Approach to Archeology.

During the fiscal year Dr. Henry B. Collins, Jr., ethnologist, continued with the study and description of archeological collections from prehistoric and protohistoric Eskimo village sites in the vicinity of Bering Strait. Material was also assembled for a paper on the origin and antiquity of the Eskimo race and culture in relation to the larger question of the original entry of man into America.

At the request of the Peabody Museum of American Archaeology and Ethnology of Harvard University, Dr. Collins made two trips to Cambridge to assist in the identification and selection of materials for the new Eskimo exhibit being planned by Donald Scott director of the Museum, and his assistant, Frederick G. Pleasants.

Dr. Collins also served as collaborator and technical adviser for Erpi Classroom Films, Inc., in connection with production of a motion-picture record of Eskimo life on Nunivak Island, Alaska, to be made by Amos Burg, explorer and photographer. The film, designed for use in the elementary schools, will provide an authentic picture of the daily life and activities of the Nunivagmiut, who have retained more

of their native culture than any other coastal-group Eskimo in Alaska.

During July 1940 Dr. William N. Fenton, associate anthropologist, was engaged in field work among the Senecas of Allegany Reservation, N. Y. While here he delivered the St. Lawrence University series of lectures at the Allegany School of Natural History. The lectures on the Iroquoian Peoples of the Northeast covered prehistoric cultures of the area, the adjustment of the Iroquois to their environment, their society and government, and their religious system. At the Six Nations Reserve on Grand River, Ontario, Canada, August 9 to September 1, the yearly cycle of ceremonies that are currently celebrated at the Onondaga Longhouse were outlined by Simeon Gibson and the principal speeches that constitute the bulk of the annual Midwinter Festival were taken in Onondaga text and translated. This study is an extension of previous investigations of Seneca ceremonies which Dr. Fenton has published, and it adds new material on the nature of village bands and their removals, the function of moieties, the nature of residence after marriage, and the sororate which was practiced, at least by the Lower Cayugas. Further assistance was rendered by Deputy Chief Hardy Gibson with Hewitt's manuscript on the Requickenning Address for installing chiefs in the Iroquois League, which Dr. Fenton is editing for publication.

Returning from the field September 15 with 300 photographic negatives, largely of masks studied at museums in New York and Ontario together with a series of their manufacture and use in Iroquois fraternities, much time elapsed assembling pictures and notes and arranging them for study.

A special paper on The Place of the Iroquois in the Prehistory of America was presented before the Anthropological Society of Washington; and Dr. Fenton also served as technical adviser for An Indian League of Nations, which was broadcast October 27 on "The World is Yours" radio program.

Work on two new research projects aimed at clearing up problems previously outlined was begun during the year. While serving as consultant to the Pennsylvania Historical Commission on archeological matters, Dr. Fenton contacted local historians who are collaborating in special phases of a study of Cornplanter's Senecas on the upper Allegheny River; and it is planned to publish their findings together with Quaker Mission Journals from 1798 which describe Indian life and events attending Handsome Lake's revelations. In quest of original sources, Dr. Fenton searched the Records of the Yearly Meeting of Friends of Philadelphia, and visited the libraries of Haverford and Swarthmore Colleges. In this project he has had the active help of M. E. Deardorff of Warren, Pa., and C. E.

Congdon of Salamanca, N. Y., who have located and transcribed other documentary sources.

Iroquois music has long deserved serious study, and with the development of modern electric sound-recording apparatus, record making in the field has become practicable. When the Division of Music in the Library of Congress furnished the necessary blanks and apparatus for Dr. Fenton's trip to the Six Nations Midwinter Festival, January 10 to February 17, 1941, Dr. Fenton undertook the task of making the recordings, first at Ohsweken, Ontario, and later at Quaker Ridge, N. Y. Sixty-two double-face records were made of samples of social and religious dance songs, and complete runs of several shamanistic song cycles and the Adoption Rite of the Tutelo were taken. Informants gave complete texts for all the recordings, and these, as rewritten after returning to Washington, should prove helpful to the transcriber. For this purpose the Recording Laboratory is furnishing a duplicate set. Because musicologists have expressed interest in the recordings, several were selected for a proposed Album of Iroquois Music, which the Library contemplates publishing; and in return for the fine cooperation of the Recording Laboratory and the Division of Music, Dr. Fenton delivered a lecture, Music in Iroquois Religion and Society, illustrated with slides and records, as the first of a series by the Archive of American Folk-song. It was repeated for the Society of Pennsylvania Archaeology at its annual meeting.

In addition a series of brief informal excursions were made to Allegany regarding place names and to explore the area that may be flooded by the proposed Allegheny Reservoir, and to Tonawanda to collect song texts of the Medicine Society.

Besides a number of book reviews in scientific and historical journals, Dr. Fenton published two papers in Bureau of American Ethnology Bulletin 128—Iroquois Suicide: A Study in the Stability of a Culture Pattern, and Tonawanda Longhouse Ceremonies: Ninety Years After Lewis Henry Morgan—and an article, Museum and Field Studies of Iroquois Masks and Ritualism, which appeared in the Explorations and Field-work of the Smithsonian Institution in 1940. Dr. Fenton prepared for publication in the Annual Report of the Smithsonian Institution for 1940, a paper entitled "Masked Medicine Societies of the Iroquois."

SPECIAL RESEARCHES

Miss Frances Densmore, a collaborator of the Bureau, continued her study of Indian music by collecting additional songs, transcribing these and songs previously recorded, and preparing material for publication. In August 1940 a trip was made to Wisconsin Dells, Wis.,

to interview a group of visiting Zuñi Indians. Songs were obtained from Falling Star, an Indian born in Zuñi, who had lived in the pueblo most of his life and taken part in the dances. His father also was a singer and dancer. Falling Star recorded 17 songs, 15 of which were transcribed and submitted to the Bureau. These are chiefly songs of lay-participants in the Rain Dance and the songs connected with grinding corn for household use.

Additional data on the peyote cult among the Winnebago were obtained from a former informant and incorporated in the manuscript on that tribe.

In October Miss Densmore went to Washington for consultation on manuscripts awaiting publication. During the winter she transcribed records of 71 Seminole songs, completing the transcriptions of recordings made in that tribe during the seasons of 1931, 1932, and 1933. It is expected that the book on Seminole music, containing 245 songs, will be completed in the near future.

A paper on A Search for Songs Among the Chitimacha Indians in Louisiana, submitted in 1933, was rewritten, amplified, and prepared for publication. The Chitimacha is the only tribe visited by Miss Densmore in which all the songs have been forgotten. Musical customs were remembered, and several legends were related in which songs were formerly sung.

In May 1941 Miss Densmore read a paper on The Native Art of the Chippewa before the Central States Branch of the American Anthropological Association at the annual meeting held in Minneapolis.

At the close of the fiscal year Miss Densmore was in Nebraska, her special interest being a search for songs that were recorded phonographically by Miss Alice C. Fletcher in the decade prior to 1893 and published in that year by the Peabody Museum of American Archaeology and Ethnology. If Indians can be found who remember these songs, they will be recorded again. A comparison of the two recordings will show the degree of accuracy with which the songs have been transmitted, and will be important to the subject of Indian music.

The entire collection of recordings of Indian songs submitted to the Bureau by Miss Densmore has been transferred to the National Archives for permanent preservation. These recordings were made and submitted during the period from 1907 to 1940, all having been cataloged and transcribed in musical notation. Many hundreds of other recordings have been made, studied, and retained by Miss Densmore but not transcribed. Recordings submitted after 1940

have been cataloged in sequence with the former collection. Thirty-five tribes are represented in the collection of 2,237 recordings, in addition to a group of songs recorded in British Columbia in which the tribes are not designated.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau has continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued three bulletins, as follows:

Bulletin 126. Archeological remains in the Whitewater District, eastern Arizona. Part II. Artifacts and burials, by Frank H. H. Roberts, Jr. With appendix, Skeletal remains from the Whitewater District, eastern Arizona, by T. D. Stewart. xi+170 pp., 57 pls., 44 figs.

Bulletin 127. Linguistic material from the tribes of southern Texas and northeastern Mexico, by John R. Swanton. v+145 pp.

Bulletin 128. Anthropological papers, numbers 13-18. xii+368 pp., 52 pls., 77 figs.:

No. 13 The mining of gems and ornamental stones by American Indians, by Sydney H. Ball.

No. 14. Iroquois suicide: A study in the stability of a culture pattern, by William N. Fenton.

No. 15. Tonawanda Longhouse ceremonies: Ninety years after Lewis Henry Morgan, by William N. Fenton.

No. 16. The Quichua-speaking Indians of the Province of Imbabura (Ecuador) and their anthropometric relations with the living populations of the Andean area, by John Gillin.

No. 17. Art processes in birchbark of the River Desert Algonquin, a circum-boreal trait, by Frank G. Speck.

No. 18. Archeological reconnaissance of southern Utah, by Julian H. Steward.

The following bulletins were in press at the close of the fiscal year:

Bulletin 129. An archeological survey of Pickwick Basin in the adjacent portions of the States of Alabama, Mississippi, and Tennessee, by William S. Webb and David L. De Jarnette. With additions by Walter P. Jones, J. P. E. Morrison, Marshall T. Newman and Charles E. Snow, and William G. Haag.

Bulletin 130. Archeological investigations at Buena Vista Lake, Kern County, California, by Waldo L. Wedel. With appendix, Skeletal remains from Buena Vista sites, California, by T. Dale Stewart.

Bulletin 131. Peachtree Mound and village site, Cherokee County, North Carolina, by Frank M. Setzler and Jesse D. Jennings. With appendix, Skeletal remains from the Peachtree Site, North Carolina, by T. Dale Stewart.

Bulletin 132. Source material on the history and ethnology of the Caddo Indians, by John R. Swanton.

Bulletin 133. Anthropological papers, numbers 19-26:

No. 19. A search for songs among the Chitimacha Indians in Louisiana, by Frances Densmore.

No. 20. Archeological survey on the northern Northwest Coast, by Philip Drucker.

No. 21. Some notes on a few sites in Beaufort County, South Carolina, by Regina Flannery.

No. 22. An analysis and interpretation of the ceramic remains from two sites near Beaufort, South Carolina, by James B. Griffin.

No. 23. The eastern Cherokees, by William Harlen Gilbert, Jr.

No. 24. Aconite poison whaling in Asia and America: An Aleutian transfer to the New World, by Robert F. Heizer.

No. 25. The Carrier Indians of the Buckley River: Their social and religious life, by Diamond Jenness.

No. 26. The Quipu and Peruvian civilization, by John R. Swanton.

Bulletin 134. Native tribes of eastern Bolivia and western Matto Grosso, by Alfred Métraux.

Publications distributed totaled 11,882.

LIBRARY

There has been no change in the library staff during the fiscal year. Accessions during the fiscal year totaled 378.

The library staff has relabeled and reshelfed 5,137 books. The sections of general ethnology and non-American material, and linguistics have now been entirely reclassified and reshelfed. Library of Congress printed cards, so far as they are available, have been ordered for practically all of this material, when not already in the catalog. Part of the work of typing these cards and filing in the catalog has been completed and will be finished in a month or two.

The sorting of foreign periodicals and society transactions has been completed and all material not in the library field has been put aside for appropriate disposal. A temporary shelf list has been made for this material and it is hoped that this section will be reclassified and reshelfed by the first of the year. The checking lists for the second edition of the Union List of Serials were marked with our holdings and returned.

The sorting of the pamphlet collection has been completed and more than half have been classified and shelved. Library of Congress cards where available have been ordered. In the future the library will have no separate pamphlet collection. All pamphlets that are kept will be classified and shelved with the books. Work has also been done on Congressional documents and some of this material is now classified and reshelfed. Government documents from the War and Interior departments, publications of the Cherokee and Choctaw nations, and of various special boards and commissions have been sorted and classified and all Library of Congress cards available ordered.

ILLUSTRATIONS

Following is a summary of work accomplished during the fiscal year by Edwin G. Cassedy, illustrator:

Line drawings-----	602
Stipple drawings-----	3
Wash drawings-----	4
Maps-----	22
Graphs-----	6
Plates assembled-----	95
Photographs retouched-----	14
Lettering jobs-----	114
Mural paintings-----	2
Negatives retouched-----	5
Total-----	867

The month of December 1940 and the first half of January 1941 were devoted to work on the new Index Exhibit in the Smithsonian main hall.

COLLECTIONS

Collections transferred by the Bureau of American Ethnology to the Department of Anthropology, United States National Museum, during the fiscal year were as follows:

*Accession
No.*

- 124559. Portions of a child's skull and skeleton collected near Kissimmee, Fla., and sent in by L. R. Farmer.
- 157,350. Skeletal and cultural remains from burial sites on Pennock Island and Dall Island, southeastern Alaska, collected during the summer of 1940 by Dr. Julian H. Steward. (36 specimens.)
- 157,796. Collection of 94 ethnological specimens from the Carrier Indians, obtained by Dr. Julian H. Steward in the region of Fort St. James, British Columbia, in 1940.
- 157,965. Collection of ethnological objects purchased among the Iroquois Indians during the past summer by Dr. William N. Fenton. (3 specimens.)
- 158,151. Collection of carved wooden masks and musical instruments collected by the late J. N. B. Hewitt among the Iroquois Indians of the Six Nations Reserve, Grand River, Ontario, Canada. (27 specimens.)
- 158,498. Two unfinished wooden masks made by Tom Harris, an Onondaga Indian of the Six Nations Reserve, Grand River, Ontario, Canada, and collected in August 1940 by Dr. William N. Fenton.
- 160,243. Archeological specimens from a sand burial mound on Lemon Bay, near Englewood, Sarasota Co., Fla. (25 specimens.)
- 160,244. Archeological specimens from various mounds in the vicinity of Parrish, on Little Manatee River, Manatee Co., Fla. (61 specimens.)
- 160,249. Archeological and skeletal material from a refuse and burial mound 1½ miles west of Belle Glade, in Palm Beach Co., Fla. (988 archeological specimens. The skeletal material in this accession has not been counted this year, but the figures will be included in some future annual report.)

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Mrs. Frances S. Nichols, editorial assistant, retired on August 31, 1940; Miss Anna M. Link served as editorial assistant from September 1, 1940, to April 30, 1941, when she resigned to accept a position in the library of the United States National Museum; Miss Nancy A. Link was appointed on June 1, 1941, to fill this vacancy. Miss Florence G. Schwindler was appointed on January 6, 1941, as stenographer in connection with the preparation of the Handbook of South American Indians; she resigned on April 21, 1941, to accept a position in the War Department.

Respectfully submitted.

M. W. STIRLING, *Chief.*

DR. C. G. ABBOT,

Secretary, Smithsonian Institution.





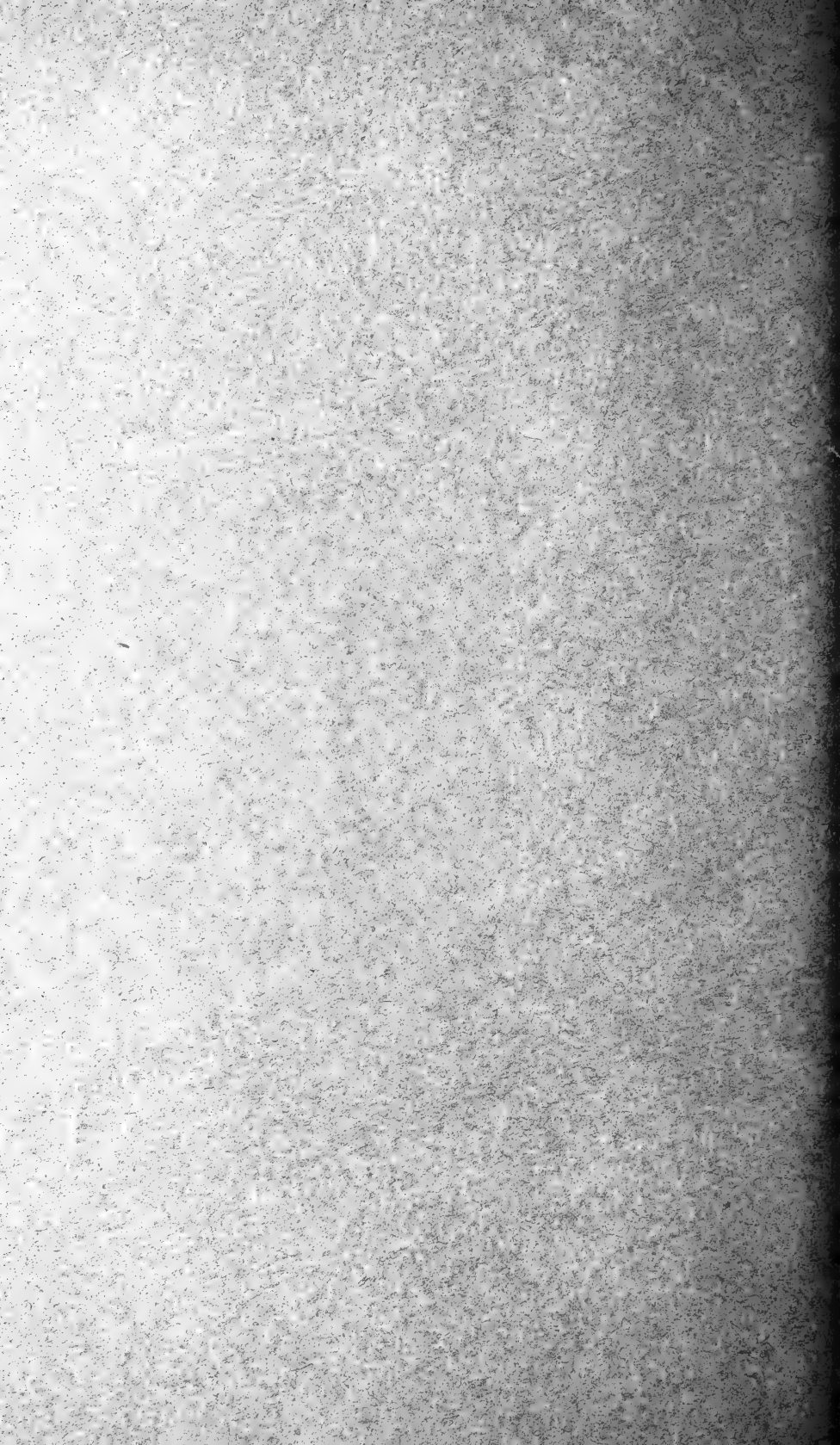
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Fifty-ninth Annual Report
of the
BUREAU OF AMERICAN
ETHNOLOGY

1941-1942



SMITHSONIAN INSTITUTION
WASHINGTON
D. C.



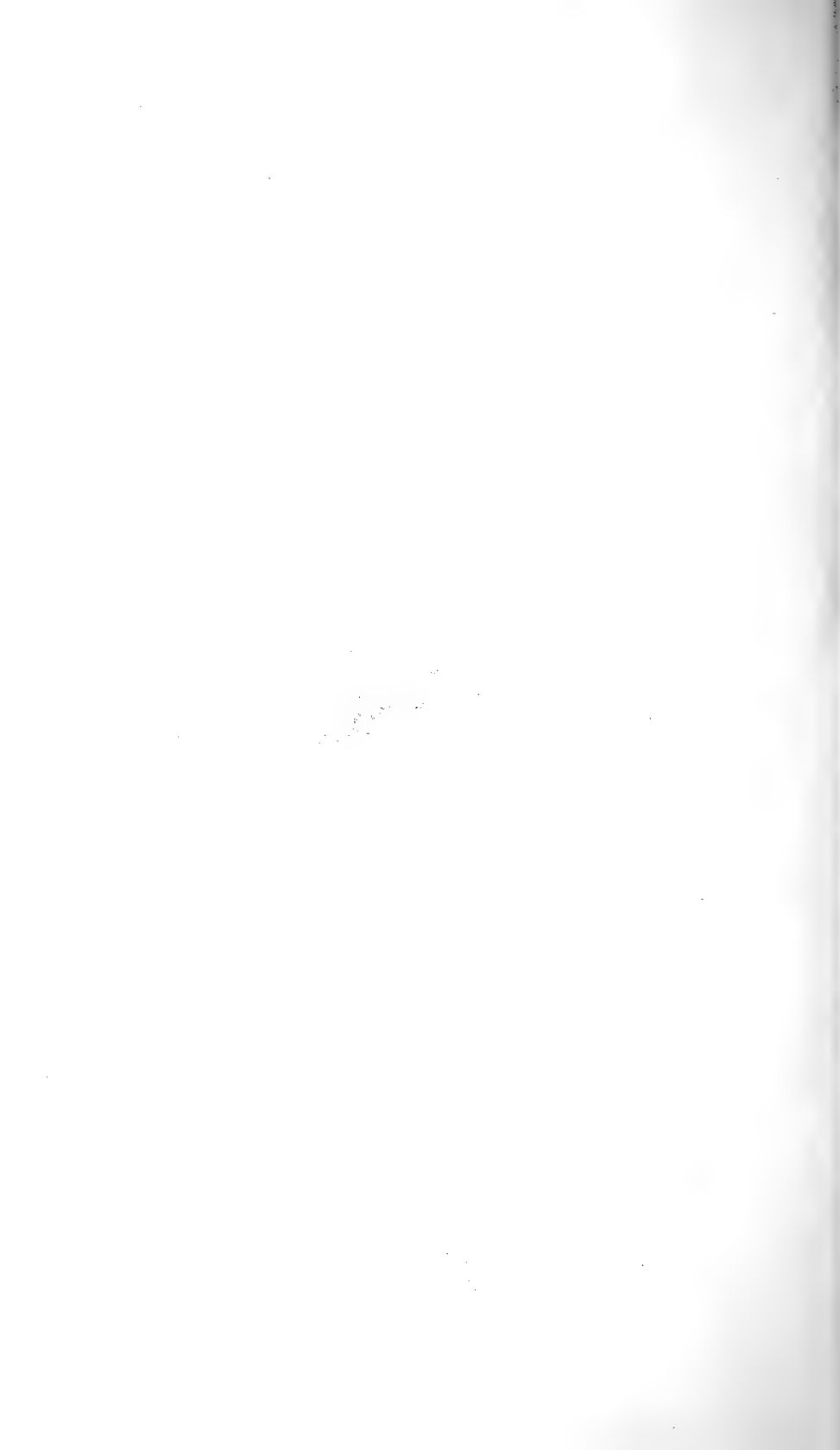
FIFTY-NINTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1941-1942



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1943



FIFTY-NINTH ANNUAL REPORT

OF THE

BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1942, conducted in accordance with the act of Congress of April 5, 1941, which provides "* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *"

During the fiscal year, the energies of the Bureau have been diverted to an increasing extent to activities concerned with the war effort. In particular, members of the Bureau staff have cooperated with the Ethnogeographic Board, and it is expected that diversion of effort in this direction will increase as the war continues. Activities concerned with Latin America have likewise been emphasized.

SYSTEMATIC RESEARCHES

M. W. Stirling, Chief of the Bureau, left Washington for Mexico early in April 1942 in continuation of the program of work for the Smithsonian Institution-National Geographic Society archeological project in southern Mexico. A visit of 2 weeks was made to the site of La Venta in Tabasco, where Dr. Philip Drucker was conducting excavations on the same project. From La Venta, Mr. Stirling went to Tuxtla Gutierrez in Chiapas in order to attend the archeological conference held under the sponsorship of the Sociedad Mexicana de Antropología. While in Chiapas opportunity was taken to visit villages of the Zoque, Tzotzil, and Chamula Indians. A trip was also made to the ancient Maya ruins of Palenque, where a week was spent at the site. Mr. Stirling returned to Washington early in June.

The remainder of the year was spent in Washington administering the affairs of the Bureau and in the preparation of reports dealing with the work in Mexico.

Dr. John R. Swanton, ethnologist, devoted the greater part of the fiscal year to digesting and carding the extant materials in the language of the Timucua Indians of Florida, a language which passed out of existence early in the eighteenth century. He also devoted some time to the revision of a large general paper on the Indians of North

America. This manuscript has not been submitted for publication as, owing to its size, there is little likelihood of its being printed in the near future. A brief paper was prepared on *The Evolution of Nations*, and this was published in the series of *War Background Studies* of the Smithsonian Institution.

Dr. Swanton has also continued to serve as the representative of the Institution on the United States Board of Geographical Names.

Dr. John P. Harrington, ethnologist, conducted field work during the year on two problems involving linguistic studies of Aleut, the language of the islands between Asia and America, and of Athapascan, the language of the northern Rockies, of a large part of the Pacific coast, and of the southern deserts. He left Washington in August 1941 to visit the Aleutian Islands, where he was fortunate enough to secure the services of Ivan Yatchmeneff, son of the Unalaska chief. The Aleuts consist of three divisions, popularly known as Unalaskans, Atkans, and Attuans, but all of them are under the Unalaska chief. Working on St. Paul Island, famous as the breeding place of the fur seal, and elsewhere, he made a complete study of the sounds and grammar of the language, with the result that it proved to be a penetrant from the American side, a typically American language of eastern origin, which has penetrated westward never quite to cross the Aleutian Chain. The Unalaska dialect is related to and undoubtedly derived from the language of the Alaska peninsula. The fact that the Chain was occupied by an American language is important because of its possible fundamental relationship to the Athapascan stock of inland Alaska.

A byproduct of the field studies was the obtaining of a probable etymology of the name "Aleut" which differs from those previously offered by other investigators. The name is still pronounced with three syllables in Russian, as *Al-e-ut*, and is the same as the tribal name "*Aglimyut*," in modern usage applied to a Bristol Bay tribe. The name of the high hill on St. George Island also omits the interior *m*, just as it is omitted in the word "*Aleut*." Early Russian usage took over the name with inclusive application, which later became crystallized into application to speakers of the Aleut language alone, although the Kodiak Islanders are still spoken of in Russian and Aleut as the Kodiak Aleuts, even at the present day.

Following the Aleutian work, Dr. Harrington proceeded to British Columbia, where he undertook studies of the relationship of Navaho and Apache with the Athapascan stock of the northernmost Rocky Mountains. This relationship was first reported by Horatio Hale and by William Turner. In British Columbia Dr. Harrington recovered traditions that the Chilcotin language had formerly occupied the Nicola Valley, and was able to obtain a large number of Chilcotin

words in that region, handed down in individual families. Following this lead, he was able to discover individuals who had in their remote youth actually spoken the extinct Kwalhioqua and Tlatskanai dialects of Washington and Oregon, and to recover vocabularies of these with all their original phonetics. He also recorded the tradition that the Upper Umpqua language of what is now the vicinity of Roseburg, Oreg., had come from the Kwalhioqua. The Roseburg language is related to the languages of the Rogue River region of southern Oregon and those of northern California. In confirmation of these findings, he obtained the tradition that the Blue Lake Indians had come from the south bend of the Smith River, far to the north. Dr. Harrington has traced the Chilcotin or Chilco language all the way from Lake Chilcotin, which drains into the Fraser River, to the head of Eel River in northern California. This work has demonstrated that the Eel River language is merely a Chilco dialect which has drifted south. The exact provenience of these southern tongues is Dr. Harrington's present goal.

At the beginning of the fiscal year Dr. Frank H. H. Roberts, Jr., was engaged in archeological excavations at a site on the north rim of the Staked Plains, $10\frac{1}{2}$ miles south of the town of San Jon, N. Mex. These investigations were continued until September 6. The work produced evidence for an interesting sequence of projectile points and other artifact types and new information on some phases of the aboriginal occupation of that portion of the Southwest. The oldest archeological material present was found to be in association with bones from an extinct species of bison and in the same stratum as mammoth remains. Indications are that, although from a different complex, this material probably dates from about the end of the Folsom horizon some 10,000 to 15,000 years ago. Between this level and the next in the series there was a gap of an, as yet, undetermined although appreciable length of time. During this interval the large bison were replaced by a smaller species, the modern buffalo. From the start of the second stage down to protohistoric times there was no break in the occupation of the area investigated, and the points and artifacts were found to progress from forms similar to those found in the Texas area to the east to those commonly associated with late sites in many parts of the country. The specimens from the second level belong to the so-called Yuma category, and the evidence from San Jon indicates that chronologically they are much later than hitherto supposed. The artifacts from the late horizon show that several different Indian groups used that area as hunting territory. In the light of present knowledge, however, it is not possible to identify the specific groups from the artifact types.

In keeping with the Smithsonian Institution's policy of cooperation with and aid to other institutions, Dr. Roberts took leave from July 28 to August 9 to give a series of lectures on Southwestern archeology and to direct student excavations at the University of New Mexico Field Session in the Chaco Canyon, N. Mex. During his absence, the work at San Jon was continued under the supervision of Eugene C. Worman, Jr., of the department of anthropology, Harvard University. From the Chaco Canyon, Dr. Roberts returned to San Jon, and, upon completion of the work there, returned to Washington.

The fall and winter months were spent in regular office routine; in the preparation of a manuscript entitled "Archeological and Geological Investigations in the San Jon District, Eastern New Mexico" for publication in the Smithsonian Miscellaneous Collections; in library researches for information for and sponsoring programs on Carthage, Zebulon M. Pike, and Babylon for "The World Is Yours" broadcasts; in organizing air-raid protection groups for the Smithsonian building and serving as building warden under the Public Buildings Administration Civilian Defense program; and in assisting in the preparation of material for evacuation to storage places outside of Washington.

On June 27 Dr. Roberts left Washington for Newcastle, Wyo., to inspect a site on the Cheyenne River where animal bones and artifacts were reported to be eroding from a gully bank and possible valuable information was in danger of being lost through the action of natural agencies. This investigation was just starting at the close of the fiscal year.

Dr. Julian H. Steward, anthropologist, continued his activities as editor of the Handbook of South American Indians. On September 2, 1941, Dr. A. Métraux was appointed to assist Dr. Steward in the preparation of the Handbook.

At the end of the fiscal year, completed manuscripts totaling about 600,000 words had been received from approximately 90 contributors. Half of the contributions are from Latin American scientists, while the remainder are from North American specialists on Middle and South American Indian tribes. The very important tribal map covering a large portion of South America was completed for the Handbook by Curt Nimuendaju and is now in Dr. Steward's hands. A collection of photographs of South American Indians was begun, and between 4,000 and 5,000 bibliographic items had been assembled.

From February to May 1942, Dr. Steward visited Brazil, Argentina, Paraguay, and Chile, where he conferred with Latin American anthropologists and arranged for their cooperation in matters pertaining to the Handbook. He also discussed plans for the formation

of an "inter-American anthropological and geographic society," for the development of cooperative anthropological and geographic research, and for the expansion of the exchange of publications. During this visit, Dr. Steward was made an honorary member of Academia Guaraní of Paraguay and Sociedad de Antropología de Argentina.

Dr. Steward has also served during the year as a member of the Policy Board of the American Indian Institute, the Advisory Board Strategic Index, and Publications Subcommittee of the Joint Committee on Latin American Studies.

During the past fiscal year, Dr. Henry B. Collins, Jr., ethnologist, continued with the study of archeological materials from prehistoric Eskimo village sites around Bering Strait. In April he presented a paper at the annual meeting of the American Philosophical Society, at Philadelphia, in which he discussed the relationships between prehistoric Eskimo culture and recently described Neolithic remains from the Lake Baikal region, southern Siberia, which have been regarded as the source of the basic American Indian culture. The paper, which is to be published in somewhat expanded form in the Proceedings of the Society, points out a number of close resemblances between the oldest Eskimo cultures—which probably date from around the beginning of the Christian era—and the Siberian Neolithic. The older stages of culture elsewhere in America, such as Folsom and Sandia, exhibit no such resemblances; it seems unlikely, therefore, that the Siberian Neolithic was the reservoir from which American culture in general was derived.

In the latter part of the fiscal year, Dr. Collins devoted considerable time to work in connection with the war effort, including the preparation of illustrated reports on various strategic areas. Preparation was also begun on a general paper on Alaska for the Smithsonian War Background Studies.

Dr. William N. Fenton, associate anthropologist, devoted the summer months of 1941 to the preparation of an introduction to his materials on Iroquois medical botany. Since a surprising number of Indian herbs have been taken into our pharmacopoeia, it was decided to publish the section on Contacts between Iroquois Herbalism and Colonial Medicine, a unit of itself, as an article in the appendix to the Annual Report of the Smithsonian Institution for 1941, reserving the balance of the study for a longer monograph.

In November, Dr. Fenton went to Brantford, Ontario, to work with Simeon Gibson of Six Nations Reserve at translating Onondaga texts bearing on the Iroquois League which his father, Chief John A. Gibson, had dictated to the late J. N. B. Hewitt. Of these the principal manuscript is a 189-page version in Onondaga of the "Deganawi'dah" legend of the founding of the Iroquois confederacy. Some 13 years later,

Chief Gibson dictated a longer version of the same legend to Dr. Alexander Goldenweiser, and this manuscript was turned over to Dr. Fenton some years ago by its collector. A translation of the Hewitt manuscript was completed in the field, and this has been reworked in part during the winter. Plans were made to translate the Goldenweiser manuscript during the ensuing year.

Two other research projects continued through the year. New materials were discovered by Dr. Fenton's collaborators in a study of Cornplanter's Senecas on the upper Allegheny River, mentioned in the report of last year, and the search for journals of the Quaker missions after 1798 has continued with some success. In this work Dr. Fenton acknowledges the labors of Messrs. M. E. Deardorff, of Warren, Pa., and C. E. Congdon, of Salamanca, N. Y., in transcribing manuscript sources and collecting much new material in the field.

The second project was conceived several years ago to fulfill a growing need among Americanists for an English edition of J. F. Lafitau's important but now rare *Moeurs des Sauvages Américains* (2 vols., Paris, 1724). Dr. Elizabeth L. Moore, of Parkersburg, W. Va., one-time member of the French department at St. Lawrence University, has undertaken the translation, and at the end of the year had completed, under Dr. Fenton's direction, the translation of those sections in volume 1 which include Lafitau's observations of the American savages at his mission among the Mohawks of Caughnawaga and the Abenaki of nearby St. Francis, omitting for the most part long extracts from contemporary and earlier works that Lafitau felt obliged to copy. In order to conserve the Bureau's copy of this rare work, a microfilm copy was made, which is fortunate since the original library copy has been evacuated for the duration.

Early in March Dr. Fenton commenced compiling, with the help of Drs. Métraux, Collins, and Steward, a cumulative list of anthropologists arriving in Washington for war work and the agencies in which they were employed.

Following appointment to the Smithsonian War Committee on April 1, a large proportion of Dr. Fenton's time and efforts have gone into the work of the Committee, of which he has served as secretary. At his suggestion the Committee drafted and distributed questionnaires soliciting basic data for "A roster of personnel, world travel, and special knowledge available to war agencies at the Smithsonian Institution," and by early June the roster had been ushered through a preliminary and a first edition. The Smithsonian roster was patterned after personnel lists of the Oceania committee of the old "Ethnographic Board" of the National Research Council, and through these contacts the Smithsonian participated in setting up the Ethnogeographic Board. At the end of the fiscal year Dr. Fenton was detailed to act

as an assistant to the director of the Board, Dr. William Duncan Strong.

During the year, Dr. Fenton delivered several illustrated lectures presenting some of the results of his studies of Iroquois culture.

At the end of the fiscal year a manuscript entitled "Songs from the Iroquois Longhouse; Program Notes for an Album of American Indian Music from the Eastern Woodlands" was accepted for publication by the Institution to accompany an album of phonograph records by the same title which the Archive of American Folk Song, Library of Congress, is bringing out as volume 6 of Folk Music of the United States.

Dr. Philip Drucker, assistant anthropologist, devoted the first half of the fiscal year to analysis of the pottery collections made in 1941 by the Smithsonian Institution-National Geographic Society expedition at Cerro de las Mesas, Veracruz, Mexico, and the preparation of a report on this material, Ceramic Stratigraphy at Cerro de las Mesas, Veracruz. Thanks to the cooperation of the Department of Archeology of the Mexican Government, he was able to study comparative collections of materials stored in the Museo Nacional de Mexico from adjacent regions, which greatly facilitated the placing of the Cerro de las Mesas culture. It was found that this site was occupied from a time level corresponding to that of Teotihuacán III of the Highland cultures until shortly before the Spanish conquest. The Ninth Cycle dates discovered in 1940 probably belong to the early period of occupation at Cerro de las Mesas. Of added interest is the fact that these dates are not only of importance to the archeology of the Gulf Coast, but in addition are the first actual carved dates even indirectly referable to the important center of civilization of the Mexican Highland, Teotihuacán. Following the period of Teotihuacán influence, a new set of influences appeared, probably an actual immigration, of Mixtecan people who brought with them their pottery craft, so that during the Upper Period at Cerro de las Mesas great quantities of Mixtecan-type (Cholultecan) wares were made. The modern designation of this coastal region as the "Mistequilla," incidentally, thus may be seen to be a well-based ethnic identification.

In the latter part of January, Dr. Drucker set out for the site of La Venta, in northwest Tabasco, where discoveries in 1940 indicated the importance of the place as an ancient ceremonial center. Excavations were carried out, aimed primarily at recovering stratigraphic material for the analysis and placing of the site in relation to the Tres Zapotes and Cerro de las Mesas "pottery yardsticks" established in former years, and for comparisons with material from more distant sites as well. Toward the end of the season some exploratory excavations were undertaken in structures at the site, especially in the large ceremonial

patio. These efforts were rewarded by the finding of an elaborate tomb of basalt columns, and a number of pieces of small but exquisitely carved jade. Most of these jade pieces represent the little-known art style often designated "Olmec," and are among the first of such objects to have been scientifically excavated. Their study will be important in defining and placing this art in its proper cultural context.

At the conclusion of the work, the materials were brought to Mexico City, where a division was made with the Department of Archeology of the Mexican Government. The entire body of stratigraphic materials, and a part of the remaining objects, were then shipped to Washington for purposes of study.

SPECIAL RESEARCHES

At the beginning of the fiscal year, Miss Frances Densmore, a collaborator of the Bureau, began the recording of Omaha songs at Macy, Nebr., on the Omaha Reservation. Musical studies had been made among the Omaha by Miss Alice C. Fletcher prior to 1893, and Miss Densmore wished, if possible, to contact singers who had recorded for Miss Fletcher and also to obtain duplicate recordings for comparative purposes. Among the older Indians, Miss Densmore located three singers, Edward Cline, Benjamin Parker, and Mattie Merrick White Parker, from whom songs had been obtained by Miss Fletcher. Miss Densmore recorded 32 songs from this group, including several which had been sung for Miss Fletcher. Joseph Hamilton and Henry J. Springer, who had been too young to sing for Miss Fletcher, were familiar with the songs of old war societies and recorded 33 songs. A third group comprised younger men, George R. Phillips, Robert Dale, and John G. Miller, from whom 6 songs connected with the first World War were obtained.

Some of Miss Fletcher's published Omaha songs were played on a piano and were recognized by the Indians as having been recorded for her. Miss Densmore obtained new recordings of these which were transcribed and compared with the versions presented by Miss Fletcher. It was noted that while the general effect of each melody is the same in both versions, differences are rather marked. An adequate comparison of the singing of these songs in the two periods of time could be made only if the original recordings were available for comparison with the records made in 1941. In contrast to the differences in these serious songs, it was said that the song of the hand game, presented by Miss Fletcher, is in use at the present time. This was re-recorded for the present work, and the two versions differ only in the omission in the new recording of a few bytones. From this it appears that songs in common use are preserved among the Omaha without change, while songs connected with ancient cus-

toms or ceremonies, which have not been sung for many years, are being forgotten and will soon disappear.

Miss Densmore also obtained from Benjamin Parker a description and a model of an old type of drum. In former times the cylinder of this drum was a charred log, preferably of oak or elm. The lower head was of hide from the lower part of a buffalo's neck, and the upper head, which was struck, was made of deer hide or the hide from a hindquarter of an elk. These heads were laced together with buffalo thongs and tightened with bits of wood in the lacing, a custom not observed previously among the Indians.

During the year Miss Densmore arranged in final order 245 songs to accompany her manuscript on Seminole music and revised portions of the text to conform to this arrangement of the material.

In December 1941 Miss Densmore was appointed as consultant at The National Archives for work in connection with the Smithsonian-Densmore collection of sound recordings of American Indian music, and during the ensuing months she was engaged in planning the organization of the collection.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau has continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued one Annual Report and three Bulletins, as follows:

Fifty-eighth Annual Report of the Bureau of American Ethnology, 1940-1941. 13 pp.

Bulletin 129. An archeological survey of Pickwick Basin in the adjacent portions of the States of Alabama, Mississippi, and Tennessee, by William S. Webb and David L. DeJarnette. With additions by Walter B. Jones, J. P. E. Morrison, Marshall T. Newman and Charles E. Snow, and William G. Haag. 536 pp., 316 pls., 99 text figs.

Bulletin 130. Archeological investigations at Buena Vista Lake, Kern County, California, by Waldo R. Wedel. With appendix, Skeletal remains from the Buena Vista sites, California, by T. D. Stewart. 194 pp., 57 pls., 19 text figs.

Bulletin 131. Peachtree Mound and village site, Cherokee County, North Carolina, by Frank M. Setzler and Jesse D. Jennings. With appendix, Skeletal remains from the Peachtree Site, North Carolina, by T. D. Stewart. 103 pp., 50 pls., 12 text figs.

The following Bulletins were in press at the close of the fiscal year:

Bulletin 132. Source material on the history and ethnology of the Caddo Indians, by John R. Swanton.

Bulletin 133. Anthropological papers, numbers 19-26:

No. 19. A search for songs among the Chitimacha Indians in Louisiana, by Frances Densmore.

No. 20. Archeological survey on the northern Northwest Coast, by Philip Drucker.

- No. 21. Some notes on a few sites in Beaufort County, South Carolina, by Regina Flannery.
- No. 22. An analysis and interpretation of the ceramic remains from two sites near Beaufort, South Carolina, by James B. Griffin.
- No. 23. The eastern Cherokees, by William Harlen Gilbert, Jr.
- No. 24. Aconite poison whaling in Asia and America: An Aleutian transfer to the New World, by Robert F. Heizer.
- No. 25. The Carrier Indians of the Bulkley River: Their social and religious life, by Diamond Jenness.
- No. 26. The quipu and Peruvian civilization, by John R. Swanton.
- Bulletin 134. Native tribes of eastern Bolivia and western Matto Grosso, by Alfred Métraux.
- Bulletin 135. Origin myth of Acoma and other records, by Matthew W. Stirling.
- Bulletin 136. Anthropological papers, numbers 27-32:
- No. 27. Music of the Indians of British Columbia, by Frances Densmore.
- No. 28. Choctaw music, by Frances Densmore.
- No. 29. Some ethnological data concerning one hundred Yucatan plants, by Morris Steggerda.
- No. 30. A description of 30 towns in Yucatan, 1937-39, with introductory and explanatory remarks, by Morris Steggerda.
- No. 31. Some western Shoshoni myths, by Julian H. Steward.
- No. 32. New material from Acoma, by Leslie A. White.
- Bulletin 137. The Indians of the Southeastern United States, by John R. Swanton.
- Publications distributed totaled 11,631.

LIBRARY

There has been no change in the library staff during the fiscal year. Accessions during the fiscal year totaled 350. Volumes received by exchange have fallen off sharply owing to the war, which has practically stopped exchange except from Great Britain and her possessions and from South America. Several new exchange sets have been started during the year.

The reclassification of the library is practically completed. The foreign society transactions and the foreign periodicals have been reshelfed and a temporary shelflist made. The publications of Indian schools and missions have been classified, reshelfed, and a temporary shelflist made. All available Library of Congress cards for periodicals in our collection have been obtained, and these cards have been sorted and will be prepared as soon as time permits.

The rare-book collection has been classified, reshelfed, and shelf-listed, and Library of Congress cards were obtained for nearly all this collection. About 600 volumes of the rare-book collection were packed for shipment to war storage in April.

New books received during the year have been classified and shelf-listed and are now on the shelf. The usual work of recording new

periodicals and society transactions and examining them for material of interest and for book reviews has been kept up to date.

A beginning has been made on bringing analytical entries up to date. The American Anthropologist, American Journal of Physical Anthropology, American Antiquity, and other important sets have been brought up to date with main cards only. Other sets and subject entries remain to be done.

The librarian attended the meetings of the Inter-American Bibliographical and Library Society in February 1942, and assisted in the formation of a Map and Geography group in the Washington chapter of the Special Libraries Association. Talks by the librarian on the library and the rare-book collection were given before the Map group of the Special Libraries Association on January 6, 1942, and before the Museum group on March 10, 1942.

ILLUSTRATIONS

During the year Mr. E. G. Cassedy, illustrator, continued the preparation of illustrations, maps, and drawings for the publications of the Bureau and for those of other branches of the Institution.

COLLECTIONS

Collections transferred by the Bureau of American Ethnology to the Department of Anthropology, United States National Museum, during the fiscal year were as follows:

*Accession
No.*

161294. Cult objects from voodoo shrines in the region of Croix des Bouquets near Port-au-Prince, Haiti, and a small lot of archeological objects from Tortuga Island off the north coast of Haiti; collected by Dr. A. Métraux during the summer of 1941.

162205. Archeological materials from Ventura, Santa Barbara, Inyo, and Kern Counties, Calif., collected by Dr. W. D. Strong in 1934.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Dr. Philip Drucker was appointed on August 1, 1941, as assistant anthropologist; Dr. Alfred Métraux was appointed on September 2, 1941, as anthropologist; Miss Ethelwyn E. Carter was appointed on September 2, 1941, as assistant clerk-stenographer in connection with the preparation of the Handbook of South American

Indians; Mrs. Catherine M. Phillips, junior stenographer, was promoted to assistant clerk-stenographer on January 16, 1942, in the editorial division, Smithsonian Institution, and Mrs. Ruth S. Abramson was appointed on March 12, 1942, to fill this vacancy; W. B. Greenwood was transferred on February 12, 1942, to the United States National Museum, and on April 1, 1942, was reassigned to his former position in the Bureau library.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. C. G. ABBOT,
Secretary, Smithsonian Institution.





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Sixtieth Annual Report

of the

BUREAU OF AMERICAN
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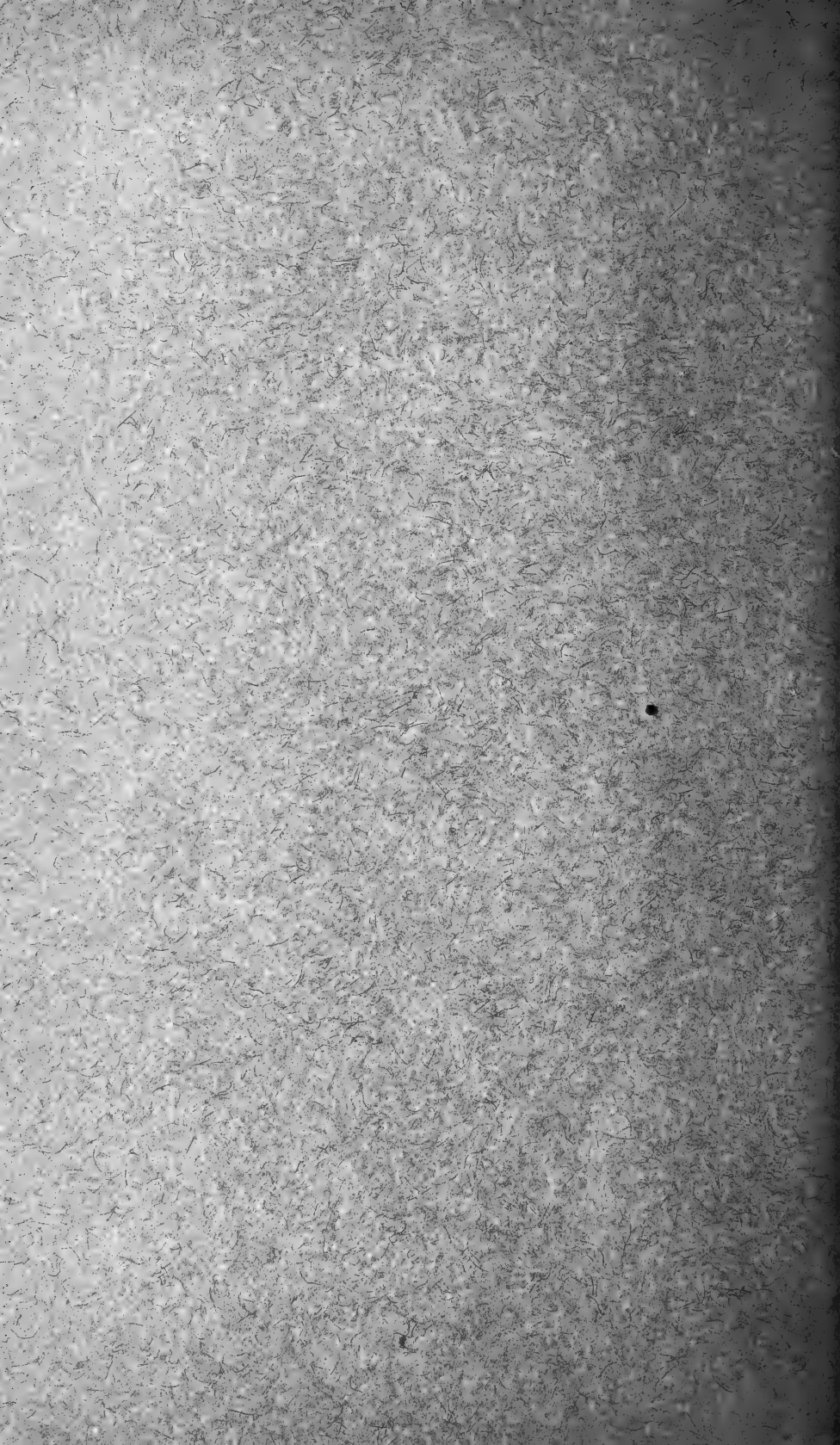
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SMITHSONIAN INSTITUTION

WASHINGTON

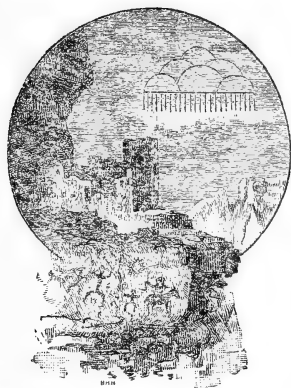
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SIXTIETH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1942-1943



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1944

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SIXTIETH ANNUAL REPORT

OF THE

BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1943, conducted in accordance with the act of Congress of June 27, 1942, which provides “* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *”

During the fiscal year, activities concerned with the other American republics have been emphasized, and the energies of various staff members of the Bureau have been directed to an increasing extent to projects bearing on the war effort. In particular, members of the Bureau staff have cooperated with the Ethnogeographic Board in preparing information for the armed services, and it is expected that efforts in this direction will increase as the war continues.

SYSTEMATIC RESEARCHES

On January 13, 1943, M. W. Stirling, Chief of the Bureau, left Washington on the fifth National Geographic Society-Smithsonian Institution archeological expedition to southern Mexico. Excavations were continued at the site of La Venta in southern Tabasco and resulted in the discovery of numerous new details of construction of the rectangular stone-fenced enclosure, one of the central features of the site. Three rich burials of important personages were uncovered containing offerings principally of jade of unusually high quality. Two mosaic floors in the form of jaguar masks made of polished green serpentine were discovered, one at a depth of more than 20 feet. During the course of the work an exploration trip was made up the Rio de las Playas, one of the headwater streams of the Tonalá River, in order to verify the existence of a ruin in this vicinity. The collections obtained during the course of excavations at La Venta were shipped to the National Museum in Mexico City. Mr. Stirling was assisted throughout the season by Dr. Waldo R. Wedel, of the division of archeology of the United States National Museum.

During the course of the fiscal year Mr. Stirling contributed to the War Background Studies of the Smithsonian Institution an article entitled “Native Peoples of New Guinea,” which was published as

No. 9 of that series. He also contributed several articles to the Ethnogeographic Board for distribution to the armed forces. During the year Mr. Stirling's paper entitled "Origin Myth of Acoma and Other Records" was issued as Bulletin 135 of the Bureau.

Dr. John R. Swanton, ethnologist, devoted a considerable portion of the year to the reading and correcting of galley and page proof of his work entitled "The Indians of the Southeastern United States," which is being published as Bulletin 137 of the Bureau. This will be a volume of approximately 850 pages exclusive of the index.

Some further work was done on the materials preserved from the now extinct language of the Timucua Indians of Florida, but it was decided to discontinue this for the present. These materials—consisting of a catalog of Timucua words and English-Timucua index to the same, photocopies of the religious works in Timucua and Spanish printed in Mexico in the seventeenth century, and typed copies of these with some interlinear translation—have been labeled carefully and placed in the manuscript vault.

Time was also devoted to the extraction of ethnographical notes from the volumes of Early Western Travels, edited by Reuben Gold Thwaites. A paper entitled "Are Wars Inevitable?" was contributed as No. 12 to the War Background Studies of the Smithsonian Institution. A few investigations were undertaken for the Board on Geographical Names, of which Dr. Swanton is a member.

Dr. John P. Harrington, ethnologist, was occupied during the first part of the year in an investigation of the Chilcotin languages of northern California. The results of this work indicated that Chilcotin was introduced into California from Canada in pre-European times, but owing to the varying rate in time reckoning for the accomplishment of linguistic changes, the length of Chilcotin occupancy in California cannot be estimated. With the exception of a small area south of the mouth of the Klamath River, Chilcotin occupies the entire coastal region of northern California to the mouth of Usal Creek in Mendocino County. In addition to the linguistic connections discovered, local traditions were obtained linking the Chilcotin peoples with a more northern group. Two separate stories were recorded deriving the Hupa from the region north of the mouth of the Klamath River, and one was obtained deriving the Indians of a part of the Eel River drainage from the Hupa region.

Since his return to Washington, Dr. Harrington has been engaged in the preparation of material for the linguistic section of the Handbook of South American Indians. This work resulted in the discovery that Witoto is Tupí-Guaraní, and also the very interesting finding that Quechua is Hokan. The Hokan hitherto had been known to extend only to the Subtiaba language of the west coast of Central America. Detailed studies of Quechua and of Cocama have been made

for the purpose of making comparisons with other South American languages and with a view to discerning possible further linguistic affiliations. In addition to this work, Dr. Harrington has also made an extensive study of the grammar of the Jivaro language of South America.

At the beginning of the fiscal year Dr. Frank H. H. Roberts, Jr., senior archeologist, was engaged in prospecting and testing an interesting site in the Agate Basin, on a tributary of the Cheyenne River between Lusk and Newcastle, in eastern Wyoming. Dr. Roberts had been sent to make preliminary investigations at this location, despite the general policy of no regular field work for the duration of the war, because of the possibility that much information might be lost as a result of erosive activities in the area and from disturbance of the deposits by amateur collectors hunting for specimens. The site gave evidence of having been the scene of a bison kill on the edges of a marsh or meadow. Animal bones and artifacts were found in a stratum that breaks out of the bank some 20 feet above the bottom of an eroding gully. This layer is covered by an overburden that deepens rapidly as it is followed back into the bank, and at a depth of 4 feet, where the tests were terminated, was still continuing. All the bones found, of which there were many, proved to be modern bison. Associated with these were projectile points, which, although they suggest an affinity with the Collateral Yuma type—a form that has been considered relatively early in the Plains area—nevertheless do not have all the significant characteristics of that type. The points have unhesitatingly been called Yuma by numerous people who have examined them, and there is no question of their belonging in that general category, although they should not be considered classic forms. All the points found at the site are consistent in pattern, yet have a considerable range in size. In the seventy-some points or large and easily identified fragments found there, no shouldered, barbed, or tanged forms appear. The material unquestionably represents a cultural unit without intrusions from other sources. Dr. Roberts dug 32 examples out of undisturbed deposits. The remaining specimens are in the collections of local residents, who picked them up as they weathered out of the gully bank. Only a few end and side scrapers have been found, probably because of the fact that the camp proper has not yet been located, but they are typical of those associated with the so-called early hunting complexes. Geologic studies have not yet been made of the deposits. They indicate some antiquity, but that they are not as old as the age formerly postulated for Yuma remains is demonstrated by the fact that the bison represented are all modern forms. It is hoped that when present conditions are over, the site can be

thoroughly excavated and detailed studies made of the material. The site was found by William Spencer, of Spencer, Wyo., and was reported to the Smithsonian Institution by Robert E. Frison, deputy game warden, Wyoming State Game and Fish Commission of Newcastle. Permission for the investigations was granted by Leonard E. Davis, owner of the land.

Leaving Newcastle, Wyo., on August 1, Dr. Roberts proceeded to Tucumcari and San Jon, N. Mex., for the purpose of disposing of some of the equipment stored there at the close of the 1941 season and arranging for storage of the remainder for the duration.

On his return to Washington, Dr. Roberts resumed his office activities. Galley and page proofs were read for his report, "Archeological and Geological Investigations in the San Jon District, Eastern New Mexico," which appeared in the Smithsonian Miscellaneous Collections, volume 103, No. 4. Manuscript was prepared and galley and page proofs were read for a paper entitled "Egypt and the Suez Canal," which was published as No. 11 in the Smithsonian Institution War Background Studies. By request, an article, "Evidence for a Paleo-Indian in the New World," was written for the *Acta Americana*, an international quarterly review published by the Inter-American Society of Anthropology and Geography. During the period from October 1 to June 30 a series of survival articles was prepared from data furnished by members of the Smithsonian staff. These articles were made available to the armed forces through the office of the Ethnogeographic Board. Dr. Roberts devoted considerable time to the task of gathering this information from the Institution's authorities in the various fields of science and working it into articles for general reading. He also furnished information on various subjects in response to requests from numerous members of the armed services. At the close of the fiscal year he was engaged in assisting in the preparation of a survival manual for the Ethnogeographic Board.

On April 1, 1943, Dr. Roberts was designated as Acting Chief of the Bureau of American Ethnology whenever the Chief, by reason of absence, illness, or other cause, is unable to discharge the duties of his position.

Dr. Julian H. Steward, anthropologist, continued his activities as editor of the Handbook of South American Indians, one of the Smithsonian projects conducted under funds transferred from the State Department for "Cooperation with the American Republics." He also prepared a number of articles for publication in the Handbook. The Handbook, which is three-fourths completed, will consist of four volumes of text and a two-volume bibliography. Material has been contributed to it by 100 specialists on the Indian tribes of Central and South America and the Antilles.

Dr. Steward took an active part in the creation of the Inter-American Society of Anthropology and Geography, the purpose of which is the development of cooperative anthropological and geographic research. Dr. Ralph L. Beals was appointed to take over the work of organizing and developing the society. The society has approximately 700 members throughout the Americas, and the first issue of its quarterly journal, *Acta Americana*, was in press at the close of the fiscal year.

Plans were developed for cooperative Institutes of Social Anthropology to assist in training students and in carrying on field work in the other American republics.

Dr. Steward served as a member of committees concerned with cooperative work in the field of inter-American relations and was a member of the Board of Governors of the National Indian Institute of the United States. He also represented the Smithsonian Institution at the inauguration of Dr. Everett Needham Case as president of Colgate University.

Dr. Alfred Métraux, ethnologist, continued his work as assistant to Dr. Julian H. Steward in preparing the Handbook of South American Indians. In addition to editing materials furnished by other contributors, Dr. Métraux completed a large amount of manuscript material of his own for use in the Handbook. Through an arrangement with the National University of Mexico, Dr. Métraux went to Mexico City to teach from March until the end of the fiscal year. During the year Dr. Métraux's paper entitled "The Native Tribes of Eastern Bolivia and Western Matto Grosso" was issued as Bulletin 134 of the Bureau.

During the fiscal year Dr. Henry B. Collins, Jr., ethnologist, was engaged in work relating to the war, for the most part in connection with the Ethnogeographic Board. Early in July 1942 Dr. Collins was detailed by the Secretary of the Smithsonian Institution and by the Chief of the Bureau to assist in handling requests for regional and other information received by the Ethnogeographic Board from the armed services and other war agencies. On February 28, 1943, he was elected Assistant Director of the Board and in this capacity continued in charge of research relating to the above-mentioned requests.

At the beginning of the fiscal year Dr. William N. Fenton, associate anthropologist, was engaged, at the request of the Pennsylvania Historical Commission, in a brief field trip among the Seneca Indians on the Cornplanter Grant in northwestern Pennsylvania. The object of this work was to collect Indian geographic names and traditions on hunting and fishing along the Allegheny River.

Following his return to Washington, Dr. Fenton devoted most of his time during the remainder of the year to projects received

by the Ethnogeographic Board from the armed services and other war agencies. One of the results of his work has been a strategic file of personnel in the United States familiar with foreign countries. Growing out of the Roster of Personnel, World Travel, and Special Knowledge Available to War Agencies at the Smithsonian Institution, as first compiled by the Smithsonian War Committee early in 1942, the present World File of Regional Specialists at the Ethnogeographic Board now includes over 2,500 names of individuals, their travel and special knowledge. Cross-indexed by name, as well as by country, this index has enabled the Director of the Board to locate promptly any person in response to requests from the armed forces for authorities who might possess unusual information, photographs, maps, and knowledge of languages of a given area. Certain officers as well as civilian specialists have returned repeatedly to the Smithsonian building to consult this file. In recognition of this work, in February Dr. Fenton was elected a research associate of the Ethnogeographic Board.

At the request of the War Department, Office of Chief of Engineers, to the Institution, Dr. Fenton delivered a lecture on "The Nature and Diversity of Human Culture" to a class in Psychology of Administration.

Dr. Fenton has continued membership on the Smithsonian War Committee, acting as its secretary.

Work on the Indian place names of western New York and western Pennsylvania has continued by correspondence with Messrs. M. H. Deardorff, Warren, Pa., and Chas. E. Congdon, of Salamanca, N. Y. At the end of the fiscal year, another correspondent, Dr. Elizabeth L. Moore, of Meredith College, had about completed the translation of J. F. Lafitau's *Moeurs des Sauvages Amériquains* (2 vols., Paris, 1724), a project reported last year.

Publications for the year include: Songs from the Iroquois Longhouse: Program Notes for an Album of American Indian Music from the Eastern Woodlands, published jointly by the Smithsonian Institution and the Library of Congress as vol. 6 of Folk Music of the United States (Archive of American Folk Song); Contacts between Iroquois Herbalism and Colonial Medicine, *in* Smithsonian Report for 1941; Last Seneca Pigeon Hunts, *in* Warren County Pennsylvania Almanac, 1943; and Fish Drives among the Cornplanter Seneca, *in* Pennsylvania Archaeologist; also several book reviews in professional and other journals. At the close of the fiscal year, the paper entitled "The Last Passenger Pigeon Hunts of the Cornplanter Senecas," which had been prepared with M. H. Deardorff for the Anthropological Papers of the Bureau, had been accepted for publication in the Journal of the Washington Academy of Sciences.

In December 1942 Dr. Philip Drucker, assistant ethnologist, received a commission in the United States Naval Reserve and was granted a military furlough. Dr. Drucker had spent the preceding portion of the fiscal year in preparing final reports on archeological work previously conducted in Mexico by the National Geographic Society-Smithsonian Institution archeological expeditions. These reports, in press at the end of the fiscal year, will appear as Bulletins of the Bureau.

SPECIAL RESEARCHES

Miss Frances Densmore, a collaborator of the Bureau, continued work on the study of Indian music by completing two large manuscripts—Seminole Music, and Music of Acoma, Isleta, Cochiti, and Zuñi Pueblos. She also devoted considerable time to a study of the traces of foreign influences in the music of the American Indians. During a portion of the year she was engaged in writing a handbook of the Smithsonian-Densmore collection of sound recordings of American Indian music for the National Archives.

Miss Densmore presented to the Bureau a record of her field work on Indian music and customs for the Bureau from 1907 to 1941, and completed the bibliography of her writings on that subject. She also presented the original phonograph record of a speech in the Ute language by the famous Ute chief Red Cap, made in 1916, and a similar record of a speech in the Yuma language by Kacora, made in 1922, with accompanying information.

In 1943 Miss Densmore completes 50 years' study of the music, customs, and history of the American Indians.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued one Annual Report and three Bulletins, as follows:

Fifty-ninth Annual Report of the Bureau of American Ethnology, 1941-1942. 12 pp.

Bulletin 132. Source material on the history and ethnology of the Caddo Indians, by John R. Swanton. 332 pp., 19 pls., 5 text figs.

Bulletin 134. The native tribes of eastern Bolivia and western Matto Grosso, by Alfred Métraux. 182 pp., 5 pls., 1 text fig.

Bulletin 135. Origin myth of Acoma and other records, by Matthew W. Stirling. 123 pp., 17 pls., 8 text figs.

The following Bulletins were in press at the close of the fiscal year:

Bulletin 133. Anthropological papers, numbers 19-26:

No. 19. A search for songs among the Chitimacha Indians in Louisiana, by Frances Densmore.

- No. 20. Archeological survey on the northern Northwest Coast, by Philip Drucker. With appendix, Early vertebrate fauna of the British Columbia Coast, by Edna M. Fisher.
- No. 21. Some notes on a few sites in Beaufort County, South Carolina, by Regina Flannery.
- No. 22. An analysis and interpretation of the ceramic remains from two sites near Beaufort, South Carolina, by James B. Griffin.
- No. 23. The eastern Cherokees, by William Harlen Gilbert, Jr.
- No. 24. Aconite poison whaling in Asia and America: An Aleutian transfer to the New World, by Robert F. Heizer.
- No. 25. The Carrier Indians of the Bulkley River: Their social and religious life, by Diamond Jenness.
- No. 26. The quipu and Peruvian civilization, by John R. Swanton.
- Bulletin 136. Anthropological papers, numbers 27-32:
- No. 27. Music of the Indians of British Columbia, by Frances Densmore.
- No. 28. Choctaw music, by Frances Densmore.
- No. 29. Some ethnological data concerning one hundred Yucatan plants, by Morris Steggerda.
- No. 30. A description of thirty towns in Yucatan, Mexico, by Morris Steggerda.
- No. 31. Some western Shoshoni myths, by Julian H. Steward.
- No. 32. New material from Acoma, by Leslie A. White.
- Bulletin 137. The Indians of the southeastern United States, by John R. Swanton.
- Bulletin 138. Stone monuments of southern Mexico, by Matthew W. Stirling.
- Bulletin 139. An introduction to the ceramics of Tres Zapotes, Veracruz, Mexico, by C. W. Weiant.
- Bulletin 140. Ceramic sequences at Tres Zapotes, Veracruz, Mexico, by Philip Drucker.
- Bulletin 141. Ceramic stratigraphy at Cerro de las Mesas, by Philip Drucker.
- Bulletin 142. The contemporary culture of the Cáhita Indians, by Ralph L. Beals.

Publications distributed totaled 10,793.

LIBRARY

Accessions during the fiscal year totaled 321. There has been a sharp decrease in all classes of accessions, owing to reduced funds in the case of purchases and to war conditions in the case of gifts and exchanges.

The Library of Congress cards for nonserial matter on hand at the beginning of the fiscal year, amounting to several thousand, have been prepared and filed. Cards for foreign periodicals and society transactions have been prepared and filed, including shelf-list cards. A record of holdings appears on each of these shelf-list entries and some are now in their permanent form.

Several thousand pamphlets, including a number of valuable ones pertaining to the Indian Territory and the Five Civilized Tribes, were reclassified and reshelved.

The library has been much in use as a source of material for the Ethnogeographic Board and the war agencies.

ILLUSTRATIONS

During the year E. G. Cassedy, illustrator, continued the preparation of illustrations, maps, and drawings for the publications of the Bureau and for those of other branches of the Institution.

COLLECTIONS

Collections transferred by the Bureau of American Ethnology to the department of anthropology, United States National Museum, during the fiscal year were as follows:

*Accession
number*

162682. Archeological materials collected at Tres Zapotes, Tuxtla District, southern Veracruz, Mexico, during the winters of 1938-39 and 1939-40 by the National Geographic Society-Smithsonian Institution expedition under M. W. Stirling. (1,359 specimens.)
163712. 14 ethnological specimens originally obtained by C. Spencer from the Payamino Indians, eastern Ecuador, and 3 archeological specimens from excavations along the Napo River in the vicinity of Eden, Ecuador. (17 specimens.)
165123. Stone ax blade and 5 bark-cloth dance masks collected by Dr. Irving Goldman from the Kобеua (Cubeo) Indians, southeastern Colombia. (6 specimens.)

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Indefinite furloughs for military service were granted to Dr. Philip Drucker and Walter B. Greenwood on December 31, 1942, and January 15, 1943, respectively; Miss Nancy A. Link was appointed editorial clerk in connection with the preparation of the Handbook of South American Indians on August 15, 1942, by transfer from the Bureau, and resigned on January 23, 1943; Mrs. Eloise B. Edelen was appointed editorial assistant on August 24, 1942, on the Bureau roll; John E. Anglim was appointed senior illustrator for the Handbook on August 12, 1942, and resigned on April 21, 1943, to be inducted into the Army; Mrs. Verne E. Samson was appointed editorial clerk for the Handbook on December 22, 1942; Mrs. Ruth S. Abramson resigned as assistant clerk-stenographer on May 28, 1943.

Respectfully submitted.

M. W. STIRLING, *Chief.*

DR. C. G. ABBOT,
Secretary, Smithsonian Institution.



Sixty-first Annual Report
of the
**BUREAU OF AMERICAN
ETHNOLOGY**

1943-1944



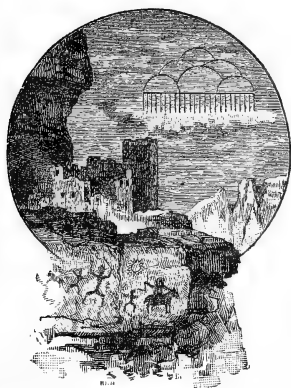
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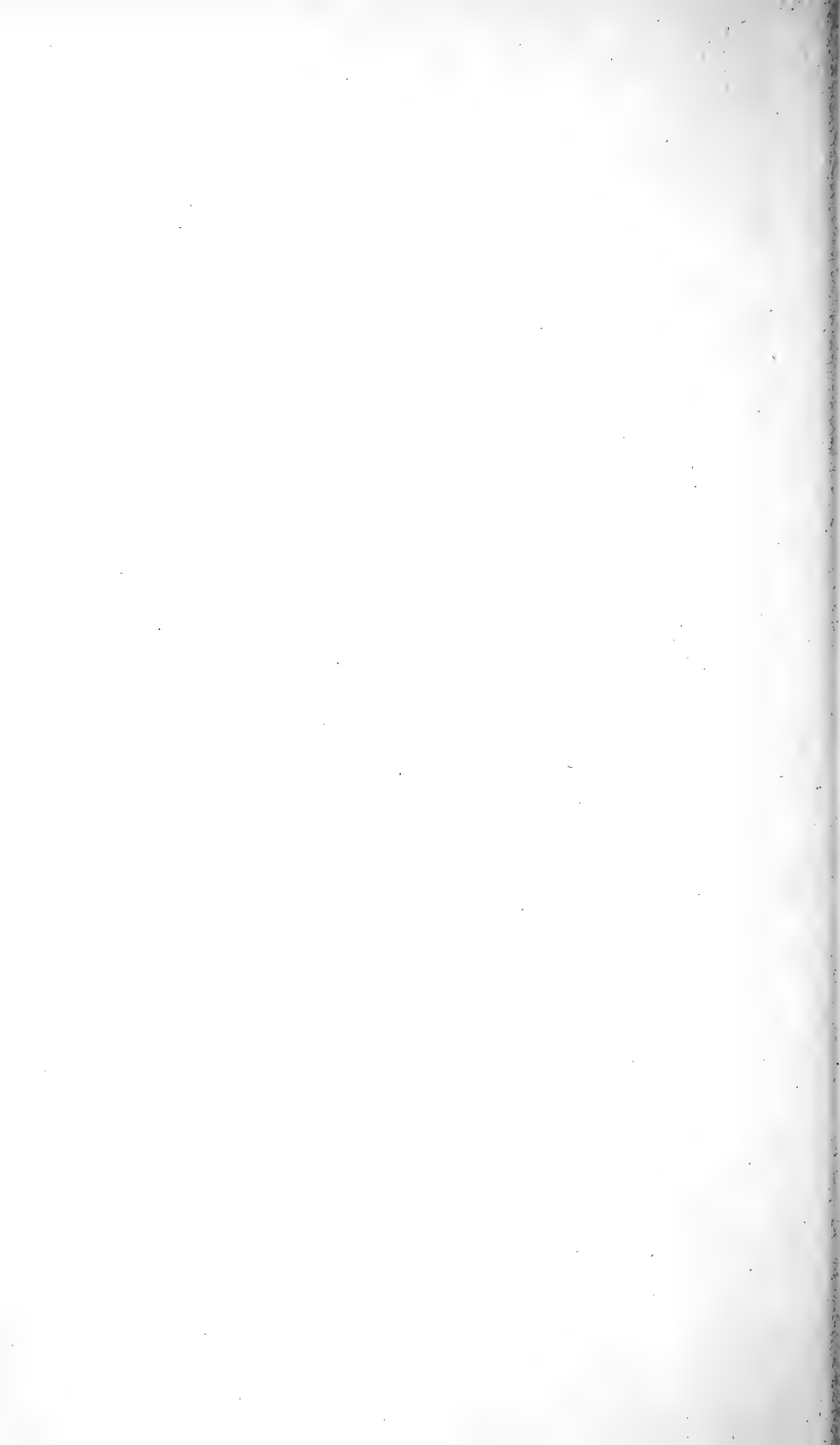
SIXTY-FIRST
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1943-1944



UNITED STATES
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WASHINGTON : 1946



SIXTY-FIRST ANNUAL REPORT
OF THE
BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, *Chief*

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1944, conducted in accordance with the act of Congress of June 26, 1943, which provides "* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *"

During the fiscal year emphasis on activities concerned with Latin America has continued.

Dr. W. D. Strong, Director of the Ethnogeographic Board, planned to return to his duties at Columbia University soon after the close of the fiscal year, and the work of the Board will thereafter be conducted entirely by members of the Bureau staff.

As the war continues and the need for specialized information grows less it is expected that the Bureau may gradually assume more of its normal duties.

SYSTEMATIC RESEARCHES

On January 28, 1944, Dr. M. W. Stirling, Chief of the Bureau, left Washington on the Sixth National Geographic Society-Smithsonian Institution expedition to Mexico. The month of February was spent in the states of Michoacán and Jalisco, where a photographic record was made of lacquer working in Uruapan and vicinity, and of pottery making in Tlaquepaque. Ethnological pictures were made depicting the activities and customs of the Tarascan Indians of Lake Pátzcuaro.

From the beginning of March until the middle of May, an archeological reconnaissance was conducted in southern Veracruz, Tabasco, and Campeche, with the principal objective of finding the extent of the early La Venta culture in this area. Several new sites were located as a result of this survey, and photographic records were made of a number of private archeological collections.

Dr. Stirling returned to Washington on May 22, 1944.

During the year a report by Dr. Stirling, "Stone Monuments of Southern Mexico," was issued as Bulletin 138 of the Bureau.

During the year just passed, Dr. John R. Swanton, ethnologist, completed the reading of proof for Bulletin 137, "The Indians of the Southeastern United States."

A study of the much discussed Norse expeditions to America was undertaken and a manuscript completed embodying the results.

During the course of the year Dr. Swanton furnished to the Navy Department more than 1,000 Indian tribal names and names of prominent Indians, to be used for naming war vessels. Approximately 200 of these have been used.

On June 30, 1944, Dr. Swanton retired from the Bureau after almost 44 years of service.

Dr. John P. Harrington, ethnologist, continuing his American Indian linguistic studies, discovered evidence suggesting that Quechua and Aymara, the languages of the two most highly civilized groups of aboriginal South America, are related to the Hokan stock of western North America. This is the first time that a linguistic relationship has been indicated between North and South America. In addition to this Dr. Harrington has reduced the number of linguistic stocks in South America by establishing the relationship of many groups previously considered to be separate.

Because of his unique knowledge of languages, Dr. Harrington has been called upon daily by the Office of Censorship to translate letters written in little-known languages from all over the world.

During the year several short papers on linguistic subjects have been published in scientific journals.

On July 5, 1943, Dr. Frank H. H. Roberts, Jr., senior archeologist, went to Abilene, Tex., where he spent 5 days investigating a prehistoric Indian burial which had been exposed 21 feet below the surface in a bank of the Clear Fork of the Brazos River by floodwaters and which was in danger of being washed away by a new rise. Studies of the deposits at the site showed that the burial had been made during the closing days of the Pleistocene or the beginning of the Early Recent geologic period about 10,000 years ago. The skeleton was turned over to the division of physical anthropology of the United States National Museum, where it has received careful study and has added to the knowledge of the physical type of the early Texas Indians.

Returning to Washington, Dr. Roberts spent the remainder of the summer and the months of early autumn preparing contributions to, obtaining pictures for, editing the manuscript, and reading proof of a manual, "Survival on Land and Sea," which was prepared for the Publications Branch of the Office of Naval Intelligence, United States Navy, by the Ethnogeographic Board and the staff of the Smithsonian Institution. He later worked on a revision of this manual for a second edition and also served as a consultant for a similar manual being prepared for the Army Air Forces. During this period he also furnished information to several other branches of the armed services and some of the war agencies.

Dr. Roberts also worked on his final report on the excavations at the Lindenmeier Folsom Man site in northern Colorado, a project completed shortly before the outbreak of the war, and also wrote a number of articles for publication in scientific journals. On March 16, 1944, Dr. Roberts was appointed a member of the Smithsonian Institution's Committee on Personnel Utilization and from that date until the close of the fiscal year devoted considerable time to the activities of that committee.

During such periods as the Chief was absent from Washington, Dr. Roberts served as Acting Chief of the Bureau.

On September 1, 1943, Dr. Julian H. Steward, anthropologist, was appointed Director of the Institute of Social Anthropology, an autonomous unit of the Bureau, reporting directly to the Secretary. His work as editor of the Handbook of South American Indians also continued concurrently. A brief statement on these two projects will be found later on in this report.

At the beginning of the fiscal year Dr. Alfred Métraux, ethnologist, was teaching in Mexico City, through an arrangement with the National University of Mexico. He returned to duty on August 1, 1943, and assisted Dr. Julian H. Steward in the preparation of the Handbook of South American Indians. Dr. Métraux was appointed Assistant Director of the Institute of Social Anthropology on September 18, 1943. He completed four papers for the Handbook, and also gathered bibliographical material for several other contributions and assembled notes for the articles of the Handbook's fifth volume.

During the fiscal year Dr. Henry B. Collins, Jr., ethnologist, continued his work as Assistant Director of the Ethnogeographic Board. As in the previous year, the activities of the Board for which he was responsible concerned research in connection with regional and other information requested by the Army, Navy, and other war agencies. He represented the Smithsonian Institution and the Ethnogeographic Board as a technical adviser to the Emergency Rescue Equipment Section of the Navy and wrote the Arctic section for the booklet "Survival on Land and Sea." Some 750,000 copies of this official Navy survival manual have been distributed to the fleet and shore stations.

Dr. Collins contributed the sections on geography, history, and anthropology for an article on the Aleutian Islands, which will be published as one of the series of War Background Studies of the Smithsonian Institution.

During such time as was available, Dr. Collins continued his researches on the Eskimo and the southeastern Indians.

Dr. William N. Fenton, ethnologist, continued to serve as research associate of the Ethnogeographic Board. With the assistance of

Miss Mae W. Tucker, he has maintained for the Ethnogeographic Board the world file of area and language specialists, which has grown to include more than 10,000 entries for all continents and island areas. This file has been extensively used by the military and other war agencies in their search for specialized personnel. From this file a series of five studies were prepared, together with maps and indexes, showing domestic sources of photographs on strategic areas of interest particularly to the Navy Department. At the request of the Army Specialized Training Division, the Ethnogeographic Board commenced a survey of area and language teaching in the Army Specialized Training Program and the Civil Affairs Training Schools in 25 American universities and colleges. Dr. Fenton participated in the survey, visiting 13 institutions between December 1943 and March 1944, and since that time has been occupied in writing up observations and preparing reports for the proper offices.

In addition to this work, Dr. Fenton continued his studies on the League of the Iroquois, translating a number of texts collected by J. N. B. Hewitt and A. A. Goldenweiser. Dr. Fenton's publications for the year were: "The Last Passenger Pigeon Hunts of the Cornplanter Senecas" (*with M. H. Deardorff*), and "The Requickenening Address of the Iroquois Condolence Council" (*of J. N. B. Hewitt*), *in* the Journal of the Washington Academy of Sciences; and an obituary, "Simeon Gibson: Iroquois Informant, 1889-1943," *in* the American Anthropologist; also several book reviews and notes in scientific and literary journals.

Since joining the staff in December 1943, Dr. Homer G. Barnett, anthropologist, has served as executive secretary of a committee formed under the sponsorship of the Ethnogeographic Board for the purpose of assembling data upon the existing state of our scientific knowledge of the Pacific Island area. The committee includes representatives of the geological, geographic, linguistic, political science, and anthropological disciplines. As executive secretary Dr. Barnett has served chiefly as organizer and coordinator of the committee's actions. Since some of the committee members are located outside of Washington, considerable correspondence has been necessary as well as meetings both in Washington and New York.

When not engaged in the above activities, Dr. Barnett has worked on the organization of field notes on various Salishan and Northwest Coast tribes, having in project a series of publications stressing cultural change among the Yurok, the Tsimshian, the Yakima, and the Makah. He has just completed one manuscript dealing with the Indian Shaker cult of the northwestern United States.

INSTITUTE OF SOCIAL ANTHROPOLOGY

As stated above, Dr. Julian H. Steward, anthropologist, on September 1, 1943, became Director of the Institute of Social Anthropology, an autonomous unit of the Bureau reporting directly to the Secretary. As Dr. Steward was instructed in the official order establishing the Institute to report to the Secretary of the Smithsonian Institution, there are presented here brief abstracts from Dr. Steward's reports to Dr. Wetmore, Acting Secretary.

The Institute of Social Anthropology was first conceived in July 1942 and a project for its work was placed before the Interdepartmental Committee for Cooperation with the American Republics in August of that year. Its stated purpose was to carry out cooperative training in anthropological teaching and research with the other American republics. For the fiscal year 1944, \$60,000 was made available for the work of the Institute by transfer of funds from the State Department appropriation.

In September 1943 the Director visited Mexico and established the terms of an agreement for the work of the Institute with the authorities of the Escuela Nacional de Antropología and the Instituto Nacional de Antropología e Historia, submitting this to the Department of State in late September. After some months of delay encountered in completing the agreement, Dr. George M. Foster, engaged by the Institute as anthropologist in charge of the work in Mexico, proceeded to that country in May and started work in cooperation with the organizations mentioned above. Dr. Donald D. Brand also represented the Institute in Mexico as cultural geographer.

No formal agreement has yet been entered into for similar work in Peru. Nevertheless, Dr. John Gillin, appointed by the Institute in January 1944 as anthropologist, commenced work in that country on an informal basis. The remaining 6 months of the fiscal year were devoted to reconnaissance and teaching at Cuzco and Trujillo.

A memorandum agreement for cooperative work in Colombia was submitted early in 1944, but at the close of the fiscal year it had not yet been reported out.

A new series in social anthropology entitled "Publications of the Institute of Social Anthropology" was started with two papers, which went to the printer just before the close of the fiscal year. No. 1 was on "Houses and House Use of the Sierra Tarascans," by Ralph L. Beals, Pedro Carrasco, and Thomas McCorkle; No. 2 was entitled "Cherán, a Sierra Tarascan Village," by Ralph L. Beals.

HANDBOOK OF SOUTH AMERICAN INDIANS

The editing of the Handbook of South American Indians, begun some years ago, was continued during the year by Dr. Julian H. Steward after September 1, 1943, under his appointment as Director of the Institute of Social Anthropology. Funds for the preparation of the manuscript are transferred to the Smithsonian Institution from the State Department appropriation for "Cooperation with the American Republics," and the Bureau will pay the cost of publication in its Bulletin series.

Volume 1, "The Marginal Tribes," and volume 2, "The Andean Civilizations," were completed during the year and sent to the printer. The manuscripts of volumes 3 and 4 were nearly completed.

The Handbook is a truly cooperative project, as one-half of the 100 contributors are scientists of the other American republics.

SPECIAL RESEARCHES

Miss Frances Densmore, a collaborator of the Bureau, continued her work on the study of Indian music by writing a manuscript entitled "Omaha Music," with transcriptions of 64 songs. This manuscript was based upon research in Nebraska in 1941 and included re-recordings of several songs that were recorded for Miss Alice C. Fletcher by the same singers. The date of the previous recordings was said to have been 1887 to 1890 and the songs are included in Miss Fletcher's "Study of Omaha Indian Music," published by the Peabody Museum of Harvard University, and in "The Omaha Tribe," by Miss Fletcher and Francis La Flesche, in the Twenty-seventh Annual Report of the Bureau. Many songs in Miss Fletcher's work were recognized by men who had not the tribal right to sing them. The present manuscript includes old songs of Omaha military and social societies, songs connected with the First World War, and songs of legends and the hand game.

Miss Densmore compiled and presented to the Bureau a chronology of her study and presentation of Indian music from 1893 to June 1944. This chronology was based on diaries, scrapbooks, and Reports of the Bureau. During a portion of the year she was engaged in completing the handbook of the Smithsonian-Densmore collection of sound recordings of American Indian music for the National Archives.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued one Annual Report and six Bulletins, as follows:

Sixtieth Annual Report of the Bureau of American Ethnology, 1942-1943. 9 pp.
 Bulletin 133. Anthropological papers, numbers 19-26. ix+615 pp., 34 pls.,
 62 figs.:

- No. 19. A search for songs among the Chitimacha Indians in Louisiana, by Frances Densmore.
- No. 20. Archeological survey on the northern Northwest Coast, by Philip Drucker; with appendix, Early vertebrate fauna of the British Columbia Coast, by Edna M. Fisher.
- No. 21. Some notes on a few sites in Beaufort County, South Carolina, by Regina Flannery.
- No. 22. An analysis and interpretation of the ceramic remains from two sites near Beaufort, South Carolina, by James B. Griffin.
- No. 23. The eastern Cherokees, by William Harlen Gilbert, Jr.
- No. 24. Aconite poison whaling in Asia and America: An Aleutian transfer to the New World, by Robert F. Heizer.
- No. 25. The Carrier Indians of the Bulkley River: Their social and religious life, by Diamond Jenness.
- No. 26. The quipu and Peruvian civilization, by John R. Swanton.

Bulletin 136. Anthropological papers, numbers 27-32. viii+375 pp., 32 pls.,
 5 figs.:

- No. 27. Music of the Indians of British Columbia, by Frances Densmore.
- No. 28. Choctaw music, by Frances Densmore.
- No. 29. Some ethnological data concerning one hundred Yucatan plants, by Morris Steggerda.
- No. 30. A description of thirty towns in Yucatan, Mexico, by Morris Steggerda.
- No. 31. Some western Shoshoni myths, by Julian H. Steward.
- No. 32. New material from Acoma, by Leslie A. White.

Bulletin 138. Stone monuments of southern Mexico, by Matthew W. Stirling.
 vii+84 pp., 62 pls., 14 figs.

Bulletin 139. An introduction to the ceramics of Tres Zapotes, Veracruz, Mexico,
 by C. W. Weiand. xiv+144 pp., 78 pls., 54 figs., 10 maps.

Bulletin 140. Ceramic sequences at Tres Zapotes, Veracruz, Mexico, by Philip Drucker. ix+155 pp., 65 pls., 46 figs.

Bulletin 141. Ceramic stratigraphy at Cerro de las Mesas, Veracruz, Mexico,
 by Philip Drucker. viii+95 pp., 58 pls., 210 figs.

The following publications were in press at the close of the fiscal year:

Bulletin 137. The Indians of the Southeastern United States, by John R. Swanton.

Bulletin 142. The contemporary culture of the Cáhita Indians, by Ralph L. Beals.

Bulletin 143. Handbook of South American Indians. Julian H. Steward, Editor. Volume 1. The Marginal Tribes. Volume 2. The Andean Civilizations.

List of Publications of the Bureau of American Ethnology, with index to authors and titles. Revised to June 30, 1944.

Publications distributed totaled 14,903.

In addition to the regular work, the editorial staff of the Bureau edited the first two publications of the Smithsonian Institution's Institute of Social Anthropology, now in press.

LIBRARY

Accessions during the fiscal year totaled 190. There has been a sharp decrease in accessions owing to war conditions.

The routine work of accessioning and cataloging new material has been kept up to date. About half of the cards withdrawn from the catalog for reclassification have been returned to the catalog, with the new numbers added and subject headings corrected.

The library has been used considerably for the work of the Ethnogeographic Board and other war agencies.

ILLUSTRATIONS

During the year E. G. Cassedy, illustrator, continued the preparation of illustrations, maps, and drawings for the publications of the Bureau and for those of other branches of the Institution.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Dr. Julian H. Steward, anthropologist, was appointed Director of the Institute of Social Anthropology, Smithsonian Institution, on September 1, 1943, by transfer from the Bureau, and Dr. Homer G. Barnett was appointed as anthropologist on December 30, 1943, on the Bureau roll, to fill this vacancy. The work on the Handbook of South American Indians was continued under the Interdepartmental Committee for Cooperation with the American Republics after September 1, 1943. Anthony W. Wilding, clerk-stenographer, was appointed Property Officer of the United States National Museum on December 20, 1943, by transfer from the Bureau, and Mrs. Catherine M. Phillips was appointed to fill this vacancy on December 22, 1943, by transfer from the editorial division, Smithsonian Institution. Dr. John R. Swanton, ethnologist, retired on June 30, 1944.

Respectfully submitted.

M. W. STERLING, *Chief.*

THE SECRETARY,
Smithsonian Institution.

Sixty-second Annual Report
of the
BUREAU OF AMERICAN
ETHNOLOGY

1944-1945



SMITHSONIAN INSTITUTION
WASHINGTON
D. C.



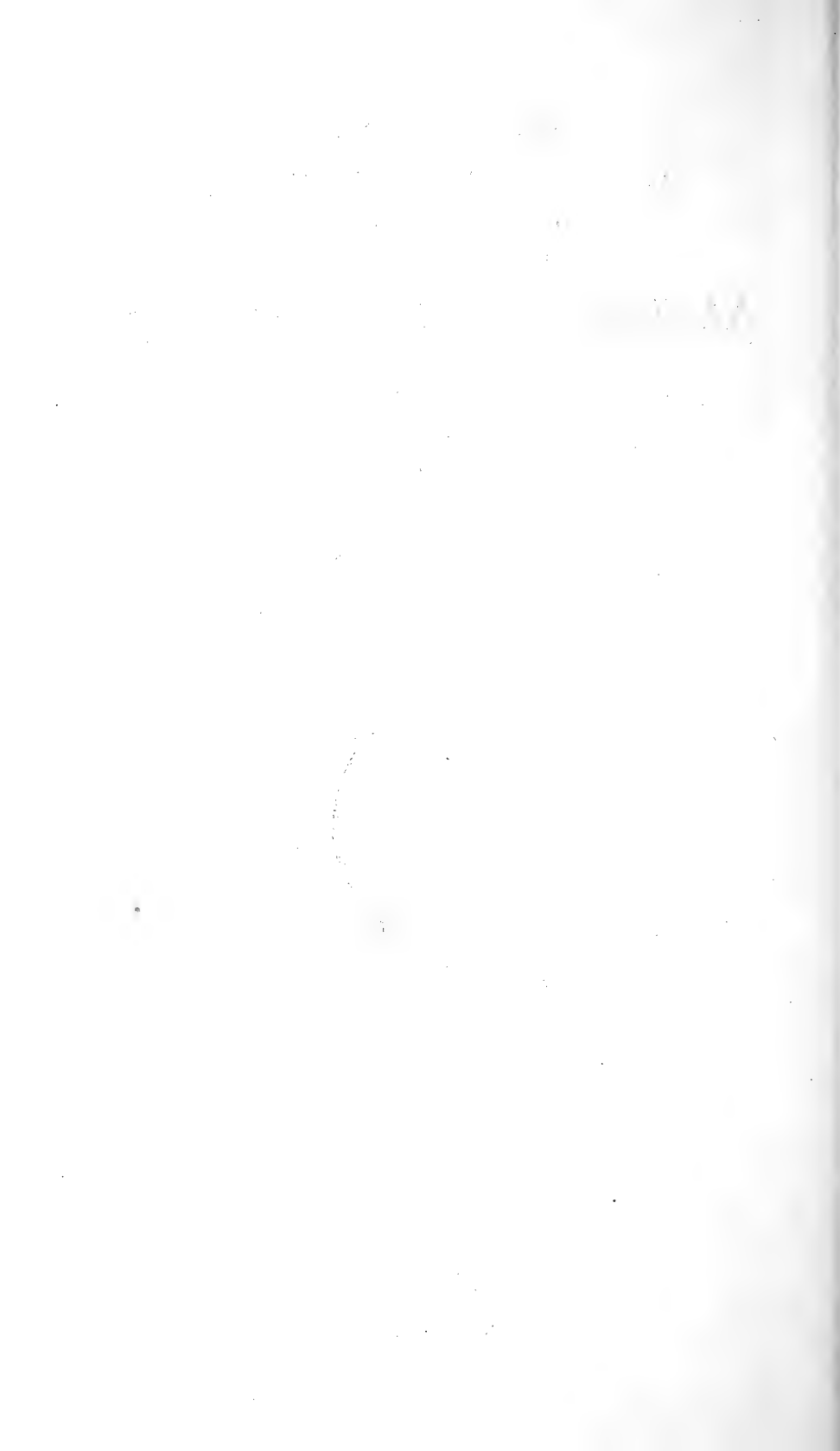
SIXTY-SECOND
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1944-1945



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1946



SIXTY-SECOND ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1945, conducted in accordance with the act of Congress of June 27, 1944, which provides “* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *”

During the fiscal year emphasis on activities concerned with the war effort and with Latin America has continued. It is hoped that as the need for war studies becomes less, the Bureau may soon resume its normal functions.

SYSTEMATIC RESEARCHES

Dr. M. W. Stirling, Chief of the Bureau, left Washington for Mexico on January 29, 1945, to continue the work of the Smithsonian Institution-National Geographic Society archeological project in southern Mexico. From February 24 to March 6 a reconnaissance trip was made in the vicinity of Tapachula, Chiapas, during which a number of archeological sites were located. Two of these, at Caca-huatan and at San Geronimo, contained carved stone monuments.

From March 6 to May 24 excavations were conducted at the site of Piedra Parada, Chiapas, 12 miles north of the town of Ocozocoautla. Most of the work was conducted on a large earth mound which covered a complex stone-masonry structure, but a number of excavations were also made at other points in the site. Previous to inaugurating this work, and at intervals during its progress, trips were made to a number of limestone caves in the vicinity, all of which had been used as places of offering and contained large quantities of ceramic remains. The material from the caves belonged to the same relatively early period as that from the mound site.

From May 28 to May 31 a new and large site of the La Venta culture was discovered as a result of information received from Juan Del Alto, of Coatzacoalcos. It is located on the Río Chiquito in southern Veracruz, near the small village of Tenochtitlan, on lands known as San Lorenzo. The site contains two large mound groups and a considerable number of carved monuments, including the two

largest colossal heads of La Venta type yet discovered. Unique features at the site are a stone aqueduct and a stone fount in the form of a swimming duck, decorated with water symbols.

Dr. Stirling returned to Washington on June 17, 1945.

Dr. John P. Harrington, ethnologist, prepared during the fiscal year 12 articles on American Indian linguistic subjects. Outstanding among these is one on the Guaraní language of South America, produced through collaboration with Dr. G. T. Bertoni, and one on the Quechua language, written with the help of Prof. J. M. B. Farfán of Lima, Perú. A large proportion of Dr. Harrington's time throughout the year was spent in translating letters and documents in obscure languages for the Office of Censorship.

During the fiscal year Dr. Frank H. H. Roberts, Jr., archeologist, continued to work on the material obtained from the Lindenmeier site in northern Colorado—the location where a group of so-called Folsom men camped during the closing stages of the last glacial period—expanding his studies to include comparisons with artifacts from other sites attributable to early archeological horizons in the New World. In this connection he prepared a manuscript "The New World Paleo-Indian" for publication in the Annual Report of the Smithsonian Institution for 1944, an article "A Deep Burial on the Clear Fork of the Brazos River" for the Bulletin of the Texas Archeological and Paleontological Society, and a paper "An Early Texan" for the Scientific Monthly.

In March 1945 Dr. Roberts was designated as liaison officer between the Smithsonian Institution and the Committee for the Recovery of Archaeological Remains—a group representing the Society for American Archaeology, the American Anthropological Association, and the American Council of Learned Societies—which was organized for the purpose of providing ways and means for the recovery of materials that may be lost through the construction of dams and the flooding of large areas along many of the river systems throughout the United States. Dr. Roberts attended all meetings of this Committee, presenting the Institution's viewpoint and assisting in the drafting of plans for carrying out such a recovery program. Dr. Roberts devoted considerable time during the latter months of the fiscal year to a study of the maps and project reports of the Corps of Engineers and the Bureau of Reclamation for the dams which they plan to construct, and to research in the archeological literature relating to these areas in an effort to determine the districts where sites will be inundated and where provisions should be made for survey and excavation projects.

In accord with the Smithsonian Institution's policy of cooperation with the Library of Congress, Dr. Roberts annotated four books on anthropological subjects for the United States Quarterly Book List. He also continued to serve as a member of the Institution's Personnel

Utilization Committee and as a part of this work prepared a manuscript for a handbook "Smithsonian Institution—Information for Employees." In addition he was the general department representative on the Efficiency Rating Review Board for the Smithsonian Institution, and attended the United States Civil Service Commission's Fourth Annual Institute of Efficiency Rating Boards of Review in June 1945.

On September 22, 1944, Dr. Roberts was appointed Assistant Chief, and during absences of the Chief served as Acting Chief of the Bureau.

Dr. Henry B. Collins, Jr., ethnologist, continued his work in connection with the Ethnogeographic Board. As in the previous year, he handled requests for information on geographical and other subjects which came to the Board from the Army, Navy, and other war agencies. When Dr. Wm. Duncan Strong resigned as Director in July, Dr. Collins was made Acting Director, and at the first Board meeting thereafter, in December, he was appointed Director.

At the invitation of the sponsoring committee, Dr. Collins attended a meeting held in Montreal in September for the purpose of organizing the Arctic Institute of North America. The purpose of the Institute is to initiate, encourage, and support scientific research in Alaska, Canada, and Greenland, on the premise that studies in many fields of science will be required as the basis for efficient planning for the development of the Arctic and sub-Arctic regions of North America. As one of the governors of the Arctic Institute, Dr. Collins attended several meetings in Montreal, at which plans for the operations of the organization were formulated.

During such time as was available, Dr. Collins continued his researches on the archeology of the Eskimo and related problems.

Dr. William N. Fenton, ethnologist, for the fourth successive year continued to devote a large part of the year to activities arising from the war effort. As research associate for the Ethnogeographic Board, six reports on Area Studies in American Universities were completed and issued in mimeograph form; others are in manuscript. These reports cover a survey of Army training programs undertaken in 1944, and again considerable time was spent in travel to the universities while observing the programs and interviewing teachers and trainees. The reception that greeted reports already distributed indicates that they are not without some usefulness.

Scientific activities, although still of necessity somewhat curtailed, picked up toward the end of the year. Dr. Fenton was reelected secretary of the Anthropological Society of Washington, and was appointed to the Board of Editors of the Journal of the Washington Academy of Sciences, to serve for 3 years. Field researches on the Iroquois were resumed. Through a grant from the Viking Fund of New York, Dr. Fenton visited the Six Nations Reserve near Brantford,

Canada, between April 23 and May 19. The Archive of American Folk Song, of the Library of Congress, again furnished recording equipment, enabling Dr. Fenton to make complete sound recordings of the chants of the Iroquois Condolence Council, previously uncollected, Chanters for the Dead, and several social dances. While in Canada, Dr. Fenton visited Toronto to consult with anthropologists at the University concerning a postwar plan for Iroquois studies, and certain specimens were studied at the Royal Ontario Museum of Archaeology.

In addition to reports issued by the Ethnogeographic Board, several book reviews, notes, and articles were contributed to scientific and literary journals. A series on "Place Names and Related Activities of the Cornplanter Senecas" appeared during 1945 in the *Pennsylvania Archaeologist*. The Northwest Ohio Quarterly carried a "Commentary on Samuel Crowell's Account of Seneca Dog Sacrifice near Sandusky (1830)." A second paper, by J. N. B. Hewitt, "Some Mnemonic Pictographs Relating to the Iroquois Condolence Council," was completed by Dr. Fenton in the field and accepted for publication in the *Journal of the Washington Academy of Sciences*, being in proof at the close of the fiscal year. Considerable progress may be noted on a related manuscript, which is a field report on "A Cayuga Condolence Cane with Pictographs Denominating the Founders of the Iroquois League," a project that was undertaken in 1943 for the Cranbrook Institute of Science.

Near the close of the fiscal year, Dr. Fenton visited Harrisburg, Warren, and Philadelphia, Pa., for the purpose of furthering ethnological studies among the Cornplanter and Allegany Senecas in cooperation with the staff of the Pennsylvania Historical Commission, local historians in northwestern Pennsylvania and southwestern New York, and the University of Pennsylvania.

In connection with projected research in the prehistory of river valleys, Dr. Fenton prepared a plan for "An Anthropological Survey of the Allegheny River Reservoir Area of New York and Pennsylvania."

Dr. H. G. Barnett, anthropologist, has devoted his efforts during the fiscal year to studies concerning the general problem of cultural change. Data bearing on this problem were obtained in the past in the field from various Indian communities and are supplemented by diverse historical sources such as regional histories, diaries, pioneer reminiscences, missionary accounts, church records, and a host of official reports on Indian investigations and reservation administration. The Indian communities involved include those of the Yurok and Hupa in northern California, the Siletz and Klamath in Oregon, and the Yakima, as well as several smaller groups around the southern end of Puget Sound, in the State of Washington. Two publications

are contemplated. It is expected that one of them, now in preparation, will be completed at an early date.

Dr. Gordon R. Willey, anthropologist, spent a large part of the fiscal year in editorial work on the *Handbook of South American Indians*, translating and revising manuscript material and selecting and preparing illustrations. He also began and completed the study of several large collections of archeological specimens from south Florida. These collections, now in the United States National Museum, came from sites in Palm Beach, Broward, and Dade Counties, and were excavated by Gene M. Stirling and Lloyd C. Reichard, representatives of the Bureau of American Ethnology, during the years 1933-1936, as a part of the Federal Relief program in archeology. The field operations were conducted by Mr. Stirling and Mr. Reichard, and their notes, drawings, and photographs were used by Dr. Willey in the preparation of the final report, entitled "Excavations in Southeast Florida," which will be published in the Yale University series in anthropology. The manuscript totaled approximately 50,000 words, and included several tables, 8 line drawings, maps, and 17 colotype illustrations.

During the last few months of the fiscal year, a part of Dr. Willey's official duties were given over to preliminary preparations for archeological research in Perú. This projected program calls for a cooperative investigation of the Viru Valley of northern Perú. Columbia University, Yale University, and the Bureau of American Ethnology are the proposed participants. Actual research and results of research will be undertaken and published separately by the participants; collaboration will be in the form of common service functions, such as field laboratories, transportation, and aerial photography. The work is planned for the spring and summer of 1946.

INSTITUTE OF SOCIAL ANTHROPOLOGY

The Institute of Social Anthropology was created in 1943, as an autonomous unit of the Bureau of American Ethnology, to carry out cooperative training in anthropological teaching and research with the other American republics. As the Director, Dr. Julian H. Steward, was instructed in the official order establishing the Institute to report to the Secretary of the Smithsonian Institution, there is presented here his report to Secretary Wetmore.

The Institute of Social Anthropology, carrying out a program of cultural and scientific cooperation with the American republics under a grant transferred from the Department of State, continued under the directorship of Dr. Julian H. Steward. Dr. Alfred Métraux, Assistant Director, was transferred to the War Department on April 2, 1945, to accept an assignment for work in Europe. Miss Ethelwyn

Carter served as secretary throughout the year. Dr. Henry J. Bruman, cultural geographer, who had been on leave of absence since July 17, 1944, resigned on June 30, 1945.

In Mexico, the Institute was represented by Dr. George M. Foster, Jr., anthropologist, and Dr. Roland D. Brand, cultural geographer, cooperating with the Escuela Nacional de Antropología of the Instituto Nacional de Antropología e Historia. From August to December they taught at the Escuela, and from December to June they supervised a party doing field research among Tarascan villages in Michoacán. The field party consisted of students from Mexico and from several other American republics.

In Perú, the Institute was represented by Dr. John P. Gillin, anthropologist, until his resignation January 31, 1945, to resume his teaching duties at Duke University. Dr. Gillin spent approximately 6 months making a study of Moche, a north coast Indian community. Mr. Harry Tschopik, Jr., anthropologist, joined the staff of the Institute on January 1, 1945, and was assigned to the field office in Lima, Perú. In cooperation with the Museos Históricos, under the direction of Dr. Luis Valcárcel, he supervised a field party consisting of representatives of the Museos Históricos in making a cultural survey of the central Highlands of Perú in the region of Huánuco.

An agreement was concluded with the Escola Livre de Sociologia e Política, of São Paulo, Brazil, for cooperation in teaching and research in the social anthropology of Brazil. Representatives of the Institute of Social Anthropology are to be detailed to Brazil at a later date.

Arrangements for cooperative work in Colombia remained uncompleted.

Publication Number 1 of the Institute of Social Anthropology, "Houses and House Use of the Sierra Tarascans," by Ralph L. Beals, Pedro Carrasco, and Thomas McCorkle, was made available for distribution. Publication Number 2, "Cherán, a Sierra Tarascan Village," by Ralph L. Beals, was received in galley proof from the printer. Publication Number 3, "Moche, a Peruvian Coastal Community," by John P. Gillin, and Publication Number 4, "Cultural and Historical Geography of Southwest Guatemala," by Felix Webster McBryde, were sent to the printer.

Of the \$61,132 originally allocated by the Department of State to the Institute of Social Anthropology for the fiscal year 1945, \$3,500 was transferred back to the Department of State and \$2,500 transferred to the Handbook of South American Indians for the purchase of an extra 600 copies of volume 3 to be distributed by the Department of State. From the remaining amount, \$51,418 was actually obligated, making a savings of \$3,714.

In June 1945 the Smithsonian Institution accepted a grant of \$2,500 from the Office of Inter-American Affairs to be allotted to Dr. Gregorio Hernández de Alba of Bogotá, Colombia, for work on the anthropology of Colombia.

HANDBOOK OF SOUTH AMERICAN INDIANS

Work continued on the Handbook of South American Indians. Volume 1, "The Marginal Tribes," was received in page proof and volume 2, "The Andean Civilizations," in galley proof from the printer; volume 3, "The Tropical Forest Tribes," and volume 4, "The Circum-Caribbean Tribes," were completed and sent to the printer; and volume 5, "Comparative Anthropology of South American Indians," is in the final stages of preparation.

Mrs. Lucille E. Levine, stenographer, resigned on April 10, 1945, and Dr. Gordon R. Willey was transferred to the Bureau of American Ethnology from the roll of the Handbook of South American Indians on August 17, 1944.

For the completion of the Handbook of South American Indians, \$6,000 was transferred from the Department of State. An additional \$2,500 was authorized by the Department of State to be transferred to the Handbook to purchase 600 extra copies of volume 3 for distribution by the Department of State from the amount originally allocated to the Institute of Social Anthropology. Of this total amount, \$8,482 was actually obligated.

SPECIAL RESEARCHES

Because of lack of funds, no special researches were conducted during the fiscal year.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued one annual report, one bulletin, one special publication, and one paper in the Institute of Social Anthropology Series, as follows:

Sixty-first Annual Report of the Bureau of American Ethnology, 1943-1944. 9 pp.

Bulletin 142. The contemporary culture of the Cáhita Indians, by Ralph L. Beals. xii+244 pp., 20 pls., 33 figs., 1 map.

List of Publications of the Bureau of American Ethnology, with index to authors and titles. Revised to June 30, 1944. 68 pp.

Institute of Social Anthropology Publ. No. 1. Houses and house use of the Sierra Tarascans, by Ralph L. Beals, Pedro Carrasco, and Thomas McCorkle. 37 pp., 8 pls., 20 figs.

The following publications were in press at the close of the fiscal year:

Bulletin 137. The Indians of the Southeastern United States, by John R. Swanton.

Bulletin 143. Handbook of South American Indians. Julian H. Steward, editor. Volume 1: The Marginal tribes. Volume 2: The Andean civilizations. Volume 3: The Tropical Forest tribes. Volume 4: The circum-Caribbean tribes.

Publications distributed totaled 11,570.

In addition to the regular work, the editorial staff of the Bureau continued work on the publications of the Institute of Social Anthropology.

LIBRARY

There has been no change in the library staff during the fiscal year. Accessions during the year totaled 204. There has been a large increase in gifts, both spontaneous and on our request. Aside from one large gift which came to us as a unit, both types of gifts are double the number received during the previous fiscal year. Exchanges also much increased over last year and material is beginning to come in from the various countries of western Europe now that postal service is once more established. Several foreign serial sets have been brought up to date by missing numbers supplied, sometimes in long runs, so that our serial sets are in a very good position, considering the disturbed conditions of the past 5 years.

The routine of accessioning and cataloging new material has been kept up to date, and the checklist for the supplement to the last edition of the Union List of Serials was checked for new entries and errors and returned to the editor.

ILLUSTRATIONS

During the year E. G. Casedy, illustrator, continued the preparation of illustrations, maps, and drawings for the publications of the Bureau and for those of other branches of the Institution.

COLLECTIONS

Collections transferred by the Bureau of American Ethnology to the Department of Anthropology, United States National Museum, during the fiscal year were as follows:

Accession No.

168052. Collection of spoons and fishhooks from Indians of the northwest Pacific coast of British Columbia and southeast Alaska; also a bone skin scraper from the Alaskan Eskimo. From the estate of David I. Bushnell, Jr.
168260. Collection of arrows, skin quivers, and headdresses from the Hupa Indians, Humboldt County, Calif., collected by E. G. Johnson.

*Accession**No.*

168929. Ethnological specimens collected by J. N. B. Hewitt from the Iroquois Indians of the Six Nations Reserve, Grand River, Ontario, Canada, and by James Mooney from the Cherokee of North Carolina.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Dr. John R. Swanton, ethnologist, who retired on June 30, 1944, was tendered an appointment to the honorary position of collaborator on July 4, 1944. This action was taken in recognition of Dr. Swanton's long and distinguished services to the Bureau. Dr. Gordon R. Willey was appointed on August 16, 1944, as anthropologist, by transfer from the staff of the Handbook of South American Indians. Dr. Frank H. H. Roberts, Jr., was appointed Assistant Chief of the Bureau on September 22, 1944.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. A. WETMORE,
Secretary, Smithsonian Institution.





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Sixty-third Annual Report

of the

BUREAU OF AMERICAN
ETHNOLOGY

1945-1946



SMITHSONIAN INSTITUTION

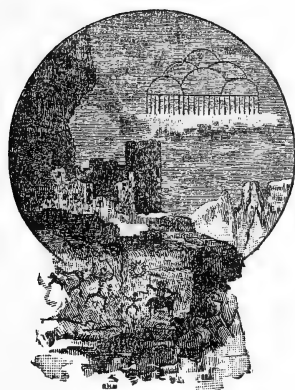
WASHINGTON

D. C.

SIXTY-THIRD
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1945-1946



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1947

SIXTY-THIRD ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, CHIEF

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1946, conducted in accordance with the act of Congress of June 27, 1944, which provides "* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *"

SYSTEMATIC RESEARCHES

Dr. M. W. Stirling, Chief of the Bureau, left Washington January 6, 1946, in order to continue work on the Smithsonian Institution-National Geographic Society archeological project in southern Mexico. From the latter part of January until the middle of April, archeological excavations were conducted at the site of San Lorenzo on the Río Chiquito in southern Veracruz. This was the site discovered by Dr. Stirling the preceding year at the conclusion of the work in Chiapas. During the season's work just concluded a map of the site was completed, several of the mounds were cross-sectioned, and a number of stratigraphic trenches dug.

During the course of the work 24 stone monuments were located, including 5 colossal heads of La Venta type, and 2 table-top altars. In addition, there were a number of miscellaneous monuments representing jaguars and seated figures, both human and anthropomorphic. The collections made during the course of the work, after inspection in Mexico City, were shipped to Washington. During the period of this work, Dr. Stirling was assisted in the field by Dr. Philip Drucker. Dr. Stirling returned to Washington on May 9.

During the fiscal year Dr. Frank H. H. Roberts, Jr., Assistant Chief, read and corrected page proof for the article, "The New World Paleo-Indian," which was printed in the general appendix to the Annual Report of the Smithsonian Institution for 1944. He prepared an article, "Prehistoric Peoples of Colorado," to be used as one chapter in a forthcoming history of Colorado which is being published by the State Historical Society of Colorado, and another article, "One Hundred Years of Smithsonian Anthropology," to be published in

Science. In addition he wrote two book reviews for anthropological journals, annotated six books for the United States Quarterly Book List, and worked on the final report on the investigations at the Lindenmeier-Folsom site.

On the basis of information obtained through correspondence with various members of the Virginia Archeological Society and from a review of the literature on Virginia, Dr. Roberts prepared a statement for the National Park Service, Region 1, on the archeological sites that would be inundated by the construction of dams and reservoirs in the James River Basin, beginning at Richmond and continuing up the main stream and its larger tributaries to the foot of the mountains. He also carried on extensive correspondence in connection with the agreement between the National Park Service and the Smithsonian Institution relative to archeological work in river basins where flood-control dams and irrigation projects will result in the flooding and loss of important archeological sites. This included preliminary plans for work in the Missouri Basin and suggestions and advice on the situation in the Etowah and Savannah River Valleys in Georgia, the Warrior River in Alabama, the Neches, Trinity, and Brazos Rivers in Texas, the Arkansas River and its tributaries in Arkansas and Oklahoma, and the Sacramento, American, Kings, and Kern Rivers in California. This entailed the writing of many letters to local people in the various areas seeking information about the existence of sites and the checking of the literature for additional information. In October Dr. Roberts was designated as director in charge of the archeological surveys and excavations to be conducted under the administration of the Smithsonian Institution in cooperation with the National Park Service, the Corps of Engineers, and the Bureau of Reclamation. In this connection he assisted officials of the National Park Service in preparing estimates and justifications for supplemental funds for 1946 and the funds for 1947 archeological work in the Missouri Basin.

Dr. Roberts also served as the general department representative on the Efficiency Rating Board of Review for the Smithsonian Institution, taking part in three hearings. In relation to this he attended two Civil Service Commission Institutes of Efficiency Rating Boards of Review and six sessions of the Interagency Conference on Training Aids and on Orientation.

On April 12 and 13, 1946, Dr. Roberts represented the Smithsonian Institution at the final convocation and other exercises of the sesquicentennial celebration of the University of North Carolina at Chapel Hill. During the year he also served on various committees for the Institution.

From July 1, 1945, to June 30, 1946, Dr. Roberts served as vice chairman of the division of anthropology and psychology of the National Research Council.

During the absences of the Chief, Dr. Roberts was Acting Chief of the Bureau.

Dr. John P. Harrington, ethnologist, spent the early part of the fiscal year in Washington, D. C., where he produced a Kiowa grammar of 405 manuscript pages and wrote 8 articles for scientific periodicals. During part of this period he was still engaged in work for the Bureau of Censorship.

Dr. Harrington left Washington February 11, 1946, for Clovis, N. Mex. There he interviewed Mr. Scheurich, grandson of Governor Bent, New Mexico's first Governor, and about 80 years of age. From Clovis, Dr. Harrington went directly to Gallup, N. Mex., where he continued his studies of Navaho phonetics. From Gallup he went to Albuquerque, N. Mex., where he worked with Mr. Shupla, expert speaker of the Hano language, which is related to Tewa. From Albuquerque he went to Santa Barbara, Calif., where he continued his Chumashan studies, and was engaged in this work at the close of the fiscal year.

Dr. Henry B. Collins, Jr., ethnologist, resumed his research on Eskimo archeology, which had been largely suspended during recent years because of his duties as Assistant Director, and later Director, of the Ethnogeographic Board. On December 31, 1945, the Board was formally dissolved, but on decision of the sponsoring agencies—the three research councils and the Smithsonian Institution—Dr. Collins continued operation of the office for an additional 6 months. The history of the Ethnogeographic Board, written by Dr. Wendell C. Bennett, was prepared for publication, and a Board project for a survey of wartime Government documents was begun January 1, 1946, under the direction of Dr. Homer G. Barnett, assisted by Walter B. Greenwood. The report on this project has been prepared by Dr. Barnett and will be published, with bibliography, in the near future.

Dr. Collins attended several meetings of the Board of Governors of the Arctic Institute of North America in Montreal, and contributed the section on anthropology for "A Program of Desirable Scientific Investigations in Arctic North America," issued as Bulletin No. 1 of the Arctic Institute. Several book reviews were also prepared for the United States Quarterly Book List and other scientific journals.

As a member of the Committee on International Cooperation in Anthropology of the National Research Council, Dr. Collins assembled from committee records and other sources information on the activities of anthropological societies, universities, and museums in Scan-

dinavia during the war. This was published in the *American Anthropologist* under the title "Anthropology During the War: Scandinavia."

During the month of July 1945, Dr. William N. Fenton was engaged in a study of place names and related activities of the Cornplanter Senecas. When completed, this series, on which M. H. Dear-dorff of Warren, Pa., and C. E. Congdon of Salamanca, N. Y., have collaborated, will comprise the Indian names of places throughout the valley of the Allegheny River. Another problem on which work was continued was the documenting and description of the Condolence Council for installing chiefs in the Iroquois League, the study of which the late J. N. B. Hewitt had commenced a generation ago. Having collected the sacred songs and ritual chants of this ceremony for the Library of Congress in the spring, Dr. Fenton returned to the Six Nations Reserve on October 29, 1945, in the Recording Laboratory sound truck for the purpose of making a documentary film. Dr. Fenton was invited to sit in on the rehearsals and attend the installation of two Cayuga chiefs on November 20, 1945. The family of one of the candidates, Chief John Hardy Gibson, has served American ethnology for two generations, and with the help of Howard Skye and the cooperation of the chiefs, a complete transcript of the proceedings of the Condolence Council among the Canadian Iroquois was prepared and published for the first time since Horatio Hale's account in the last century. This material, written up on returning from the field, became the body of an illustrated lecture on "The Six Nations of Canada," which Dr. Fenton was invited to deliver before the Royal Canadian Institute of Toronto, January 12, 1946. In the field, Ernest Dodge, of the Peabody Museum of Salem, collaborated in recording some rare Iroquois flute music from James White, Onondaga of Six Nations. In addition, a complete performance of the Dark Dance Rite of the Little People was recorded with Eli Jacob, Cayuga of Sour Springs, as leading singer. Similar recordings were made of the Death Feast ritual in the spring, and from Howard Skye, an official of the ceremony, Dr. Fenton obtained a fairly complete account of the fall celebration. The same informant helped translate a Cayuga text of the Tutelo Migration Legend, collected by Hewitt. Returning by way of Allegany Reservation, near Salamanca, N. Y., material for a second album of Iroquois songs was collected from singers at Coldspring Longhouse. Christian hymns in Seneca were recorded near West Salamanca to extend coverage of hymn singing already collected in Mohawk and Oneida. Acknowledgment is due the Viking Fund of New York for support of this field work.

An outstanding event in Iroquois studies was the organization and conduct of the First Conference on Iroquois Research, held October

26-28 at the Allegany State Park, N. Y. Discussions were devoted to ethnology, linguistics, and archeology with reference to the Lower Great Lakes area. The proceedings of the conference, written by Dr. Fenton, were distributed to the 20 persons in attendance and to others interested. Dr. Fenton attended a similar conference on the prehistory of eastern New York and New England, held February 22, 1946, at the New York State Museum, Albany.

"Area Studies in American Universities" reclaimed D. Fenton's attention, when the Commission on Implications of Armed Services Educational Programs, of the American Council on Education, requested him to prepare a report for publication on the Ethnogeographic Board's Survey of the Foreign Area and Language Training Programs of the ASTP and the Civil Affairs Training Schools during 1943-44. The manuscript for the final report, totaling some 180 pages, was virtually completed at the close of the fiscal year. Completion of this report coincided with the end of the Ethnogeographic Board and discharged a final obligation to that wartime activity.

The following publications by Dr. Fenton appeared during the year:

Place names and related activities of the Cornplanter Senecas (Pennsylvania Archaeologist):

III. Burnt-house at Cornplanter Grant, vol. 15, No. 3, pp. 88-96.

IV. Cornplanter Peak to Warren, vol. 15, No. 4, pp. 108-118.

V. The Path to Conewango, vol. 16, No. 2, pp. 42-56.

(With J. N. B. Hewitt) Some mnemonic pictographs relating to the Iroquois Condolence Council (Journal of the Washington Academy of Sciences, vol. 35, No. 10, October 15, 1945, pp. 301-315).

An Iroquois Condolence Council for installing Cayuga chiefs in 1945 (Journal of the Washington Academy of Sciences, vol. 36, No. 4, April 15, 1946, pp. 110-127).

Dr. Philip Drucker, anthropologist, resumed his duties at the Bureau of American Ethnology on December 17, 1945, after release to inactive duty by the Navy. He departed almost immediately for Mexico to assemble equipment, set up camp, and make preparations for excavating a site in southeastern Veracruz, San Lorenzo, that had been selected by Dr. M. W. Stirling, Chief of the Bureau, for this season's work by the National Geographic Society-Smithsonian Institution cooperative expedition. On Dr. Stirling's arrival, in the latter part of January, Dr. Drucker remained as his assistant. Intensive excavations were carried out in various mounds and other features of the site, and numerous stone monuments, including altars, statues, and tremendous monolithic heads of "Olmec" or "La Venta" type were found. While Dr. Stirling occupied himself with a study of the

monuments, Dr. Drucker made tests to locate an occupational zone, and dug a deep stratigraphic trench to obtain ceramic materials to define the culture horizon to which the monuments belong. The material from these investigations will be of inestimable value in tying in the monuments with those of Tres Zapotes and La Venta, and defining the ancient "Olmec" culture.

Following the close of the expedition's camp in mid-April, Dr. Drucker proceeded to the neighboring state of Chiapas to carry out reconnaissance planned to supplement that done by Dr. Stirling the previous year. He was able to locate a number of caves containing offerings or caches of pottery vessels from pre-Spanish times, and made collections which were shipped to Mexico City for ultimate shipment to Washington. In addition to the caves, a number of extensive village sites were discovered which contained not only remains of stone houses but also ball courts and great ceremonial structures of masonry.

On May 21 Dr. Drucker proceeded to Mexico City where the San Lorenzo and Chiapas collections were inspected by officers of the Museo Nacional de Mexico, and where, through the courtesy of those officers, permission was obtained to ship the collections to Washington for study and for preparation of reports for publication. While the shipping permit was going through necessary channels, Dr. Drucker availed himself of the opportunity of studying ceramic and jade collections in the Museo Nacional, and to visit sites in the central highland where important discoveries have been made in recent years, such as Tula, in the state of Hidalgo, and Xochicalco, in Morelos. At the end of the fiscal year he was completing preparations to return to Washington.

During the month of July 1945 Dr. Gordon Willey, anthropologist, was entirely occupied in completing a 50,000-word manuscript entitled "Excavations in Southeast Florida." This paper will make available the results of the archeological field program carried out in south Florida in 1933-36 by the Bureau of American Ethnology in conjunction with the State of Florida.

From August 1945 to February 1946 Dr. Willey was primarily engaged in editorial work on the final volumes of the Handbook of South American Indians. The fifth and last volume of this work was submitted to the editor of the Bureau at the end of February, with the exception of part 3, "The languages of South America," which is being prepared by Dr. J. Alden Mason. During this period a 25,000-word article on South American ceramics was prepared for inclusion in the Handbook, and a 3,000-word article on the archeology of the Argentine pampas was prepared to be published as part of a Yale University symposium on Argentine archeology.

During the early part of 1946 Dr. Willey also assisted Dr. Roberts in preparing preliminary plans for the Federal Valley Authority archeological program.

In February a brief survey trip was made to Georgia on the proposed Allatoona River control project.

From March until June Dr. Willey was engaged in conducting archeological field work in the Virú Valley in northern Peru, for a proposed study of prehistoric settlement patterns in the valley. At the close of the fiscal year Dr. Willey was still engaged in this field work.

INSTITUTE OF SOCIAL ANTHROPOLOGY

The Institute of Social Anthropology was created in 1943 as an autonomous unit of the Bureau of American Ethnology, to carry out cooperative training in anthropological teaching and research with the other American republics. As the Director, Dr. Julian H. Steward, was instructed in the official order establishing the Institute to report to the Secretary of the Smithsonian Institution; there is presented here his report to Secretary Wetmore.

Washington office.—The Institute of Social Anthropology, carrying out a program of cultural and scientific cooperation with the American republics under a grant of \$77,351 transferred from the Department of State, continued under the directorship of Dr. Julian H. Steward. Miss Ethelwyn Carter served as secretary throughout the year.

Mexico.—In Mexico the Institute was represented by Dr. George M. Foster, Jr., anthropologist, in charge of the work; by Dr. Stanley S. Newman, linguist; and by Dr. Robert C. West, cultural geographer, who joined the staff in February 1946, when Dr. Donald Brand resigned to resume his teaching duties at the University of New Mexico.

Since cooperation with the Escuela Nacional de Antropología began in June 1944, 15 university courses in anthropology, geography, and linguistics have been given, attended by more than 100 individual students. Total enrollment in all courses has exceeded 150. Because of the international nature of the Escuela, it has been possible to reach students from countries other than Mexico, including Haiti, Guatemala, Costa Rica, Panama, Colombia, Spain, France, Canada, and the United States. In both courses and field work, students have had an opportunity to learn American techniques, methodology, and, above all, ideals of scholarship.

Basic field research on the important Tarascan population of Michoacán has been conducted. Institute staff members have put 24 man-months, and the seven participating students 55 man-months, into this research. The field work of the Institute, in conjunction with previous studies, has resulted in the most complete body of cultural

data available on any comparable area in Latin America. One large monograph on the Tarascan area has already been published, and three more will follow in 1947. Six student papers of from 100 to 200 manuscript pages are also being prepared for publication in Spanish by the Escuela.

Peru.—Dr. F. Webster McBryde, cultural geographer, was assigned in September 1945 to take charge of the Institute work in Peru. Harry Tschopik, Jr., continued his work in Peru throughout the year.

The accomplishments can be shown best by a résumé of the work since it began early in 1944. At this time, Peru had no institution devoted essentially to social science teaching and research, and its geographical society was requesting advice from the United States about its proposed reorganization. The cooperation of the Institute has helped the Ministry of Education of Peru to establish a well-financed national center of social science, the Instituto de Estudios Etnológicos. The Instituto, dedicated to teaching, research, and publication, is a most important development, because for the first time Peru can obtain scientific information on her native peoples, who are the predominant element in her contemporary population. The staff of the Peruvian office of the Institute of Social Anthropology has given lectures at the Universities of Cuzco and Trujillo, and courses in geography and anthropology are planned for the Instituto, thus enabling Peruvian students to obtain training in United States techniques of social science. Dr. McBryde has helped in the reorganization of the geographical society and has advised on changes in the geography curriculum in San Marcos University in Lima.

The Institute staff has carried out extensive research among Peruvian coastal and central highland communities. The latter project, done in cooperation with three Peruvian scientists, involved 36 man-months and included 30 different communities. The data will be published in both Spanish and English in several monographs, two of which already are in press. They not only represent significant contributions to knowledge on heretofore little-known groups, but also will be very useful to Peruvian authorities interested in such practical problems as that of obtaining laborers for the high Andean mines and that of colonizing sparsely populated areas of eastern Peru, a matter of prime importance to the agricultural experimental stations. At the request of the Peruvian-Bolivian educational commission, a survey will be made of the settlement patterns of the altiplano to provide a basis for the establishment of rural schools.

The importance of these research results has been acknowledged and stressed by the Minister of Education in a speech before the Peruvian Congress.

Brazil.—Cooperation with the Escola Livre de Sociologia e Politica began October 1, 1945, when Dr. Donald Pierson was assigned as representative of the Institute of Social Anthropology to Brazil. In February 1946, Dr. Kalervo Oberg was assigned as cultural anthropologist to cooperate with the Escola Livre.

In effect, the Institute has taken over and expanded a program which was begun under Dr. Pierson in 1940 and which has helped make the Escola Livre one of the most important social science centers in South America. Seven courses in sociology and anthropology are now being given by the Institute staff. Students in the social science major have increased from 5 in 1945 to 24 in 1946. The first masters degrees in social science were given in February 1946. With the help of the Institute staff, it has been possible to increase the undergraduate curriculum from 3 to 4 years, a very distinct educational gain.

Institute staff members have continued to guide the program of translating 200 articles and 13 books from English into Portuguese. This work, financed by outside funds, is of great importance as an aid to teaching.

Field research to be started this year will meet the outstanding need of Brazilian students, namely, intensive training in field methods through their application. The research results will be published in English and Portuguese. Surveys in Matto Grosso and rural areas near São Paulo have already been carried out by Institute staff members and students.

Publications.—Publication No. 2, "Cherán: A Sierra Tarascan Village," by R. L. Beals, was issued during the year. Publication No. 3, "Moche, a Peruvian Coastal Community," by John Gillin, and Publication No. 4, "Cultural and Historical Geography of Southwest Guatemala," by Felix Webster McBryde, were received in proof. Publication No. 5, "Highland Communities of Central Peru: A Regional Survey," by Harry Tschopik, Jr., was sent to the printer. Publication No. 6, "Empire's Children: Tzintzuntzan and its People," by George M. Foster, Jr., was contracted for by a printer in Mexico. Mrs. Eloise B. Edelen, of the editorial staff of the Bureau of American Ethnology, did the editorial work on these publications.

Handbook of South American Indians.—No grant from the Department of State for cooperation with the American republics was requested for the Handbook during the fiscal year 1946. The final preparation of the manuscript and clerical work pertaining to the Handbook was undertaken by the Washington office of the Institute of Social Anthropology, with the assistance of Dr. Gordon Willey, of the Bureau of American Ethnology.

Volume 1, *The Marginal Tribes*, and volume 2, *The Andean Civilizations*, were issued in June 1946. In addition to the usual edition of 3,500 distributed by the Bureau of American Ethnology, the Department of State ordered 600 copies for distribution through its embassies in Latin American countries, and the Superintendent of Documents ordered 1,000 for sale. Volume 3, *The Tropical Forest Tribes*, and volume 4, *The Circum-Caribbean Tribes*, were received in galley proof. With the exception of the linguistic section, volume 5, *The Comparative Anthropology of South American Indians*, was completed and submitted to the editor of the Bureau of American Ethnology for the final editing.

During the fiscal year, the Interdepartmental Committee on Scientific and Cultural Cooperation of the Department of State granted the Bureau of American Ethnology \$15,000 toward the cost of publishing the Handbook.

SPECIAL RESEARCHES

Miss Frances Densmore, a collaborator of the Bureau, prepared for publication a paper entitled "Music of the Alabama Texas." In this tribe, Miss Densmore found that only ordinary dance songs remain.

She also submitted her complete bibliography covering 50 years of study of American Indian music and a paper entitled "Prelude to the Study of Indian Music in Minnesota." Another long paper was completed on the subject "Distribution of Certain Peculiarities in Indian Songs." This paper is illustrated with a number of distribution maps.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued one Annual Report and one Bulletin, listed below; also two volumes of a five-volume Bulletin, and one publication of the Institute of Social Anthropology.

Sixty-second Annual Report of the Bureau of American Ethnology, 1944-1945. 9 pp.

Bulletin 137. *The Indians of the Southeastern United States*, by John R. Swanton. 943 pp., 108 pls., 5 figs., 13 maps.

The following publications were in press at the close of the fiscal year:

Bulletin 143. *Handbook of South American Indians*. Julian H. Steward, editor. Volume 3: *The Tropical Forest Tribes*. Volume 4: *The Circum-Caribbean Tribes*.

Institute of Social Anthropology Publ. No. 3. Moche, a Peruvian Coastal Community, by John Gillin.

Institute of Social Anthropology Publ. No. 4. Cultural and historical geography of Southwest Guatemala, by Felix Webster McBryde.

Institute of Social Anthropology Publ. No. 5. Highland Communities of Central Peru: A regional survey, by Harry Tschopik, Jr.

Publications distributed totaled 12,730. As compared with the fiscal year 1944-45, this was an increase of 1,160.

In addition to the regular Bureau work, the editorial staff conducted the editorial work on the publications of the Institute of Social Anthropology.

LIBRARY

There has been no change in the library staff during the fiscal year. Accessions during the year totaled 109. There has been a marked falling off in the number of gifts to the library, doubtless due to the disturbed condition of the publishing industry following the end of the war. Though there is a slight decrease in exchange material in the form of books which are entered on the accession book, there has been a very great increase in exchange material as a whole. Large shipments, covering the period since 1939 or 1940 to date, have been received from many of our exchanges in Europe and other parts of the world. Many of our sets have thus been brought up to date without inquiry on our part.

The routine of accessioning and cataloging new material has been kept up to date. A small amount of work has been possible, also, on analytical entries for periodical material. It is hoped that this work will soon be brought up to date.

ILLUSTRATIONS

E. G. Cassedy, illustrator, spent most of his time from July 1945 through April 1946 on art work for the Old Apothecary Shop, a new exhibit in the National Museum. Other work of routine nature was done for the Handbook of South American Indians and for other branches of the Institution.

ARCHIVES

Miss Mae W. Tucker continued her work of operating and cataloging the manuscript and photographic archives of the Bureau. In addition to furnishing material for routine requests for photographs and manuscripts, many qualified visitors were received and furnished with materials or working facilities.

The Mohawk Dictionary, copied by Mrs. Erminnie Smith from records in Canada, was alphabetized and filed for more ready refer-

ence. A number of the Iroquoian vocabularies collected by Mrs. Smith and J. N. B. Hewitt and recorded in the Powell Outline volumes were copied on cards and filed for more convenient reference. The number of these cards so far completed is approximately 7,500. Personal and place names numbering about 600 were copied from New York State historical documents and placed in the card catalog. The Nez Percé dictionary compiled by Miss S. L. McBeth was copied on cards from the original manuscript in the Bureau collection. These cards number about 2,000.

Early in 1946 preparation was begun for a catalog of the unpublished manuscript material in the Bureau archives, to be published for distribution. In order to insure as accurate a catalog as possible the material is being checked piece by piece and listed on memorandum sheets for the final typing.

COLLECTIONS

Collections transferred by the Bureau of American Ethnology to the Department of Anthropology, United States National Museum, during the fiscal year were as follows:

Accession

No.

171677. One elk-horn quirt from the Pawnee Indians. Collected about 1877 near Columbus, Nebr., by Elon J. Lawton, M. D.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the American Indians of both continents, both past and present. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Dr. Philip Drucker, anthropologist, returned to duty from military furlough on December 17, 1945. Dr. Homer G. Barnett resigned December 31, 1945. Mrs. Catherine M. Phillips, clerk-stenographer, transferred to the War Department May 21, 1945, and Mrs. Jessie S. Shaw was promoted to fill this vacancy effective June 3, 1946, by transfer from the division of ethnology, United States National Museum.

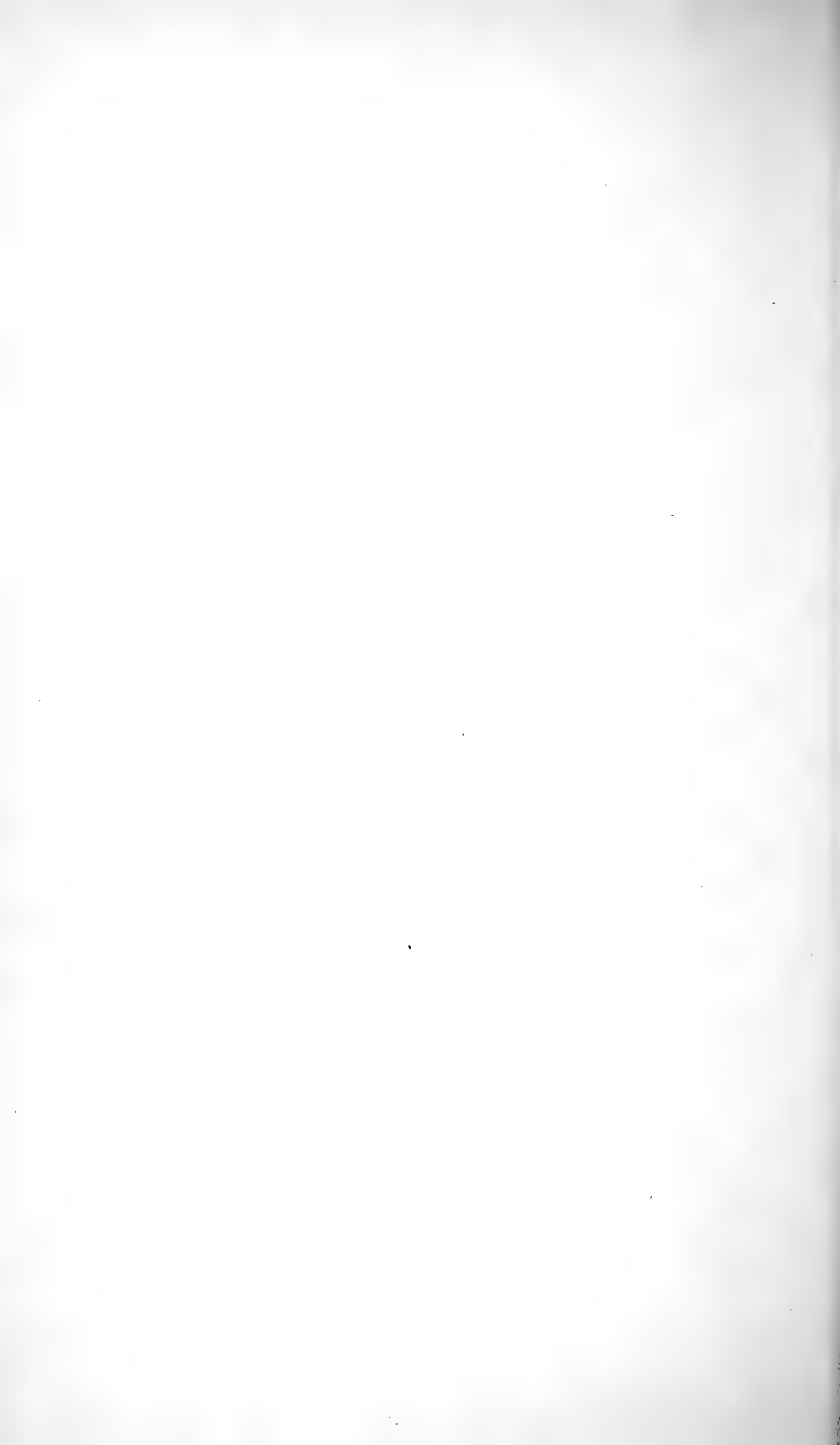
Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. A. WETMORE,

Secretary, Smithsonian Institution.





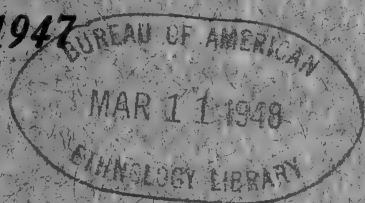
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Sixty-fourth Annual Report

of the

BUREAU OF AMERICAN ETHNOLOGY

1946-1947



SMITHSONIAN INSTITUTION

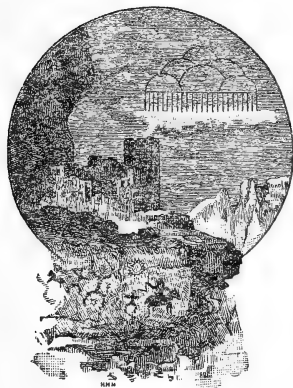
WASHINGTON

D. C.

SIXTY-FOURTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1946-1947



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1948

SIXTY-FOURTH ANNUAL REPORT
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BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, *Chief*

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1947, conducted in accordance with the Act of Congress of June 27, 1944, which provides “* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *”

SYSTEMATIC RESEARCHES

Dr. M. W. Stirling, Chief of the Bureau, spent the greater part of the fiscal year in Washington, attending to administrative duties and completing for publication reports on archeological field work in southern Mexico. Two papers were completed entitled “An Archeological Reconnaissance of the State of Tabasco, Mexico,” and “Piedra Parada, a Chiapas Highland Site.” Considerable progress was also made on a paper entitled “Additional Stone Monuments of Southern Mexico.”

Several lectures were given during the year on anthropological subjects. In April 1947 Dr. Stirling went to Houston, Tex., as representative of the Smithsonian Institution at the Inauguration of Dr. Wm. Vermillion Houston as President of Rice Institute.

Dr. Frank H. H. Roberts, Jr., Associate Chief of the Bureau and Director of the River Basin Surveys, devoted the major part of his time during the fiscal year to directing the program of the River Basin Surveys. The latter is a cooperative project between the Smithsonian Institution, the National Park Service, the Bureau of Reclamation, and the Corps of Engineers, United States Army. Its purpose is the recovery of such archeological and paleontological information and materials as will be lost through the construction of dams and the creation of large reservoirs in many of the river valleys of the United States.

In directing the survey work Dr. Roberts recruited personnel, arranged for supplies and equipment, established cooperation with local institutions in various parts of the country, prepared over-all plans for a Nation-wide archeological program, wrote progress reports for the cooperating agencies, and aided in the preparation of preliminary reports on the results of surveys in various reservoir

areas. He went to Atlanta, Ga., July 23-25, 1946, to confer with representatives of the National Park Service and engineers in the office of the Division Engineer for the South Atlantic Division, Corps of Engineers, about the problems in that area. He went to Lincoln, Nebr., September 24 to October 4, to meet the incoming field parties from the Missouri Basin. At that time he received reports on the explorations, discussed plans for future investigations, and assisted in making arrangements for carrying on the work at the field headquarters during the fall and winter months. While at Lincoln he made two trips to Omaha to confer with officials of the National Park Service, Region 2, and engineers from the office of the Division Engineer, Missouri River Division, Corps of Engineers. From December 26 to 31, he was in Chicago, Ill., to take part in a symposium on river valley archeology in which there were representatives from the National Park Service, the American Anthropological Association, the Society for American Archeology, the Committee for the Recovery of Archeological Remains, and several universities. Dr. Roberts' report on the activities of the River Basin Surveys appears in subsequent pages.

During the course of the year Dr. Roberts wrote several book reviews for anthropological journals, annotated four books for the United States Quarterly Book List, prepared a number of popular articles on the work of the River Basin Surveys, and served as a consultant on manuscripts on anthropology and archeology for several encyclopedias.

Dr. Roberts was the General Department Representative on the Efficiency Rating Board of Review for the Smithsonian Institution. In this connection he attended the Civil Service Commission Institute of Efficiency Rating Boards of Review. He represented the Smithsonian Institution at a meeting held in Washington, D. C., April 15, 1947, for the purpose of organizing a National Council for Historic Sites and Buildings.

From July 1, 1946, to June 30, 1947, Dr. Roberts served as a member of the executive committee of the Division of Anthropology and Psychology, National Research Council.

During the absences of the Chief, Dr. Roberts was Acting Chief of the Bureau.

The beginning of the fiscal year found Dr. John P. Harrington, ethnologist, at Searchlight, Nev., from which point he traveled with Murl Emery to a point above Cottonwood Island in one of the wildest portions of the Colorado River where, according to Indian tradition, is the house of Matavilya, principal deity of the lower Colorado region. The house of Matavilya was discovered to be a natural formation consisting of a butte about 200 feet high on the western side of the river, and opposite this butte another, perhaps 500 feet in height, on the

eastern side of the river. These two buttes are interpreted by the ancient Indians of the region as being what remains of the doorposts of the house of Matavilya, and Indian tradition has evidently attached itself to this place for many generations, probably for many centuries.

The interesting myth was obtained which recounts the destruction of the house at the time of the cremation of Matavilya. Considerable time was spent in checking with surviving ancient Indians in regard to the discovery of this important site, Dr. Harrington going as far as Tehachapi, Calif., for this purpose.

On November 6, 1946, Dr. Harrington returned to Washington, D. C., and the entire remainder of the fiscal year was spent in sorting over and preparing various articles for publication.

The first of these undertakings was the preparation of an article on the State Names of Mexico. This paper covers not only the state and territory names of Mexico, but also the country names of Central America and South America. Several of the etymologies are new, notably that of the name of the Mexican State of Yucatan, which is here seen to be derived perhaps from a hypothetical form Yucahtan.

The next item completed was an article on the Tewa language of New Mexico. A paper on the Province Names of Canada was next finished. Compilation for this work had long been in progress, part of it done in Canada.

An extensive paper on the Aleutian language was next written, embodying the results of previous field work in Alaska. Another paper was prepared consisting of a detailed ethnogeographic description of the projecting rocks and islands off the coast of California.

A manuscript was completed with the title "Quirix is the Native Name of San Felipe Pueblo." This paper sets forth the unique thesis that Bandelier is wrong in assuming that Quirix, which gives its name to the Keresan linguistic stock, is Bernalillo, or any site in the vicinity of Bernalillo, but that the recorded form is a Spanish spelling of the Indian name of San Felipe. The Tewa of the Castañeda account of the Coronado Expedition would then be Isleta, and Isleta is still called Tewa in Keresan.

A number of short papers were also written, the titles being as follows:

The Name Yucatan.

The Name Colorado.

The Three Earliest Mentions of the Turquoise Mines of New Mexico.

The Name Chuckwalla.

Rita, a Short-Cut for Saying Riito.

De Alarcón has the Name of Zunyi Salt Lake.

Olivella River, the Old Name of Santa Fe Creek.

Trail Holder.

H'aak'o, Original Keresan Name of Acoma.

Dr. Henry B. Collins, ethnologist, continued his investigations in Eskimo anthropology. During the winter he completed the numbering and cataloging of his collection of some 7,000 archeological specimens excavated at Cape Prince of Wales and other prehistoric Eskimo village sites around Bering Strait.

At the February meeting of the Board of Governors of the Arctic Institute of North America, Dr. Collins was elected vice chairman of the Institute. His article, *The Origin and Antiquity of the Eskimo*, tracing the Old World affiliations of the Eskimo culture and race type, will appear as one of the chapters of a general book on the Arctic to be published by the Arctic Institute.

In May Dr. Collins was appointed Chairman of the Directing Committee for the Arctic Bibliography and Roster, two separate projects which the Arctic Institute of North America is carrying out under contract for the Office of Naval Research of the Navy Department. In these projects the Arctic Institute is receiving active cooperation and assistance from the Library of Congress and the National Research Council. Officials of the latter organizations, and representatives of the Navy, Army, and Board of Governors of the Arctic Institute comprise the directing committee, which serves as a policy and advisory body with the responsibility of organizing and supervising the work on the two projects. The bibliography project will be conducted by four experienced bibliographers, with clerical assistants, working in the principal libraries in the United States and Canada. It will have as its objective the compilation of an annotated, fully indexed bibliography covering the descriptive, geographical, and other scientific literature on the Arctic from the earliest historical writings to those of the present time. It is estimated that the bibliography project will require at least 3 years for completion. The Roster of Arctic Specialists, a 2-year project, is to be conducted by a staff of three workers, headed by a former official of the National Roster of Scientific and Specialized Personnel. The roster will be patterned after the National Roster and the World Roster of Area and Language Specialists compiled by the Ethnogeographic Board during the war. Its purpose will be to assemble a comprehensive record of the experience and specialized knowledge of scientists, explorers, writers, and Arctic residents who possess first-hand information of value concerning the Arctic and sub-Arctic regions.

Dr. Collins wrote the article *Anthropology* for the 1947 *Encyclopaedia Britannica Book of the Year*. He also served as anthropological consultant for the *Encyclopedia Arctica*, which is being edited by Dr. Vilhjalmur Stefansson for the Navy Department. In this capacity he organized the anthropological sections of the *Encyclopedia* and contributed several articles on archeological subjects.

In June Dr. Collins left Washington for Martha's Vineyard, Mass., to conduct a 6 weeks' archeological survey of the island.

Returning to a study of the social organization and ceremonial life of the Seneca Nation commenced before the war, Dr. William N. Fenton, ethnologist, established field quarters on the Allegany Reservation between July 1 and September 18, when he returned to Washington. Observations made 10 years ago were repeated at meetings of two orders of the Medicine Society, and observing the Green Corn Festival for the fifth time afforded information on social and cultural change. At the behest of one of the chiefs, Dr. Fenton recorded from Fannie Stevens, matron of the Heron clan, several hundred personal names belonging to the eight Seneca clans. Recordings made in 1945 for a forthcoming album of Seneca music were played repeatedly to the singers and interpreters to assure accuracy of texts. With a possible documentary film in mind, 700 feet of 16-mm. Kodachrome moving pictures were taken of various activities in the Coldspring community. An additional week of field work from October 7 to 12 permitted verifying some of the personal names in genealogies taken in 1933.

Cultural affinities between the northern Iroquoians and their southern cousins, the Cherokee of the Great Smoky Mountains, have occupied the attention of Bureau ethnologists since Mooney's time. At the invitation of Lester M. Hargrett, of Washington, the bibliographer of Indian Laws, Dr. Fenton motored to Cherokee, N. C., in early December. We owe a brief and intensive introduction to Cherokee ethnology to Will West Long, who was 17 when James Mooney came to Cherokee and whose name is associated with the work of every field ethnologist who ventured into Big Cove settlement from 1887 until March 14, 1947, when Will passed away.

Dr. Fenton obtained information for contrasting the Boogah Dance of the Cherokee with masked performances of the Iroquois False-face Society, and some additional details were collected on the Eagle Dance, a variant of the calumet ritual, which reached the Iroquois during the eighteenth century by one documented line of diffusion from the Catawba and Cherokee of the Southeast. When recordings of Cherokee and Seneca Eagle Dance songs are compared, it will develop that they are derived from a common source. Photographs were made of the Cherokee mask-making process, and some portraits of Mr. Long in characteristic Eagle Dance postures. A report of these findings has been prepared for publication.

Two collections of Americana seen on this trip deserve mention. The MacGregor Collection in the Library of the University of Virginia contains some notable early items on American Indians. Dr. T. H. Spence, Librarian of the Historical Foundation of the Presbyterian

Reformed Church, Montreat, N. C., called attention to an extremely rare pamphlet which describes Chickasaw and Choctaw towns, locates certain mounds, and contains notes on pigeon roosts (*A Brief History of the Mississippi Territory; to Which is Prefixed a Summary View of the Country between the Settlements on Cumberland River, and the Territory*, by Rev. James Hall, A. M., Salisbury (N. C.): 12 mo., pp. (2) 70, printed by Francis Coupée, 1801).

The second conference on Iroquois research, which Dr. Fenton organized in 1945, was again the outstanding event in Iroquois studies. The conference, held October 4, 5, and 6, in cooperation with the Allegany State Park Commission at Red House, N. Y., brought together anthropologists and historians interested in the Iroquois from the Northeastern States, Canada, and the Middle West. Charles E. Congdon of Salamanca, N. Y., and Merle H. Deardorff of Warren, Pa., were cohosts to the conference.

Dr. Fenton gave several lectures during the year on topics related to his work; on September 10 to the L. H. Morgan Chapter, New York State Archaeological Association, Rochester; October 15 to the Anthropological Society of Washington; December 12 to the Arts Club of Washington.

A chapter was completed for a forthcoming report of the American Folklore Society: "Research in American Folklore: Plains, Eastern Woodlands, and Contact Folklore between Indians and Colonial Settlers." Seneca Songs from Coldspring Longhouse was prepared as program notes to an album of records which the Library of Congress is publishing. Work was continued on a final draft of a report for the Smithsonian Miscellaneous Collections, A Cayuga Condolence Cane with Pictographs Denominating the Founders of the Iroquois League, a study which Dr. Fenton commenced several years ago at the request of the Cranbrook Institute of Science.

As a member of the Committee on International Cooperation in Anthropology, National Research Council, Dr. Fenton attended two meetings in Washington, and prepared a report on Anthropology during the War, VII: The Arab World (*American Anthropologist*, 1947, pp. 342-343). He relinquished secretaryship of the Anthropological Society of Washington, becoming vice president, and continued to give considerable time to the *Journal of the Washington Academy of Sciences*, as senior editor during 1947.

Publications.—Place names and related activities of the Cornplanter Senecas, V: The path to Conewango (*Pennsylvania Archaeologist*, vol. 16, pp. 42-56, April 1946).

Twiyendagon (Woodeater) takes the heavenly path; on the death of Henry Redeye (1864?-1946), Speaker of the Coldspring Seneca

Longhouse (American Indian, American Association on Indian Affairs, vol. 3, No. 3, pp. 11-15, 1946).

Integration of Geography and Anthropology in Army Area Study Curricula (Bulletin American Association of University Professors, vol. 32, No. 4, pp. 696-706, winter, 1946).

Area studies in American universities (Commission on Implications, Armed Services Educational Programs, American Council on Education, xi+89 pp., Washington, 1947).

In addition, several reviews were prepared and published in the United States Quarterly Book List, and in other journals.

Dr. Philip Drucker, anthropologist, returned to his official station at Washington from Mexico at the beginning of the fiscal year. While awaiting the arrival of the collections from San Lorenzo Tenochtitlan, he began a study of the La Venta ceramic collections, excavated by the National Geographic Society-Smithsonian Institution expedition in the spring of 1942.

During the ensuing months he classified some 24,000 sherds from the site of La Venta, recording descriptive data and stratigraphic distributions which will be embodied in the final report on the culture represented at this key site of Olmec culture. At the conclusion of his study of these materials he prepared a brief paper entitled "Some Implications of La Venta Ceramics," for the Smithsonian Miscellaneous Collections.

On February 8, 1947, he proceeded from Washington to Mexico on a joint expedition of the National Geographic Society and the Smithsonian Institution. The purpose of this expedition was to make an archeological survey of the Pacific coast of the state of Chiapas, Mexico. From the time of his arrival in Tapachula, Chiapas, on February 16, until his departure from Tonalá, Chiapas, on May 24, he tested 15 archeological sites, obtaining from each collections of sherds ranging from 2,000 to 4,000 pieces on the average. Among these sites were several whose ceramics indicated a relationship with the Mixteca-Puebla area of the Highland, and which are probably to be attributed to the late pre-Conquest intrusions of the Nahuatl-speaking Pipil, colonies of whom penetrated as far southeastward as Nicaragua. Other sites yielded wares that indicate affiliation with more ancient horizons, one such linking very definitely with the oldest ceramic complex yet known from Guatemala Highland and coast: the Miraflores horizon. One of the outstanding finds of the survey was the discovery of a midden deposit over 3 meters in depth, containing pottery in the upper 1.2 m., and no trace of ceramics below this point. This site requires more extensive excavation than was possible during the survey, but it is quite possible that it may contain the earliest remains yet known from southern Mexico and Central America—perhaps pre-

ceramic and early ceramic horizons whose existence up to now has only been suspected but never demonstrated.

In the month of March, during the survey work, Dr. Drucker made a brief visit to Guatemala City where, through the courtesy of Drs. R. E. Smith and Edwin Shook of the Carnegie Institution, he was permitted to study pottery collections from the Guatemala Highlands and coast, in the Carnegie Institution Laboratory.

From Tonalá, Dr. Drucker proceeded to Mexico City to arrange for the exportation of the collections.

On June 9 Dr. Drucker arrived in Washington, D. C., where he was detailed to the River Basin Surveys project, under the direction of Dr. Frank H. H. Roberts, Jr., Associate Chief of the Bureau of American Ethnology. After a series of conferences with Dr. Roberts, Dr. Drucker proceeded on June 16 to the Pacific coast to take charge of archeological work in areas to be inundated by Bureau of Reclamation and Corps of Engineers dams in that area.

From July 1 through September 1 Dr. Gordon R. Willey, anthropologist, continued his field investigations, begun in March of 1946, as a member of the Virú Valley Expedition to northern Peru. The Virú program was a cooperative attempt, on the part of a group of anthropologists and a geographer, to study thoroughly a single valley of the Peruvian coast as a living unit through some 3,000 years of time. Archeological, geographical, and modern community studies were embraced in the project, which was under the direction of a steering committee of the Institute of Andean Research. As one of the major participants, Dr. Willey represented the Bureau on the steering committee. His own share of the research consisted of a survey of the prehistoric settlement patterns of the valley.

At the close of field operations in August over 300 sites had been studied from the point of view of community plan or settlement pattern. These sites were selected from all sections of the valley, and it is estimated that they represent a 25-percent sample of the total sites in the valley. All types of sites were included in the sample—cemeteries, dwelling units, fortifications, temples, and palaces. In addition particular attention was paid to prehistoric irrigation canals, evidences of past land utilization, and ancient roads. Preliminary analysis shows eight cultural periods to be represented. The survey was accomplished with the aid of jeep transportation and large-scale air photo-maps. A technique of site mapping, involving the use of an epidiascopic projector, was worked out with the air photos. The final report on this survey is now in preparation.

In addition to the settlement survey Willey also excavated at two burial sites, one in the upper and one in the lower valley. A report on the first of these sites has recently been published.

Early in August Willey took part in the Conference on Peruvian

Archeology held at Hacienda Chiclín. At this time he presented a preliminary summary of his field results.

After the work in Virú was terminated, Dr. Willey made a brief visit to the Lambayeque Valley, north of the city of Trujillo, and examined collections in the important but little-known Bruning Museum. Returning south to Lima, he began a protracted trip by automobile, going from Lima to Caamaná and from there inland to the Lake Titicaca region. From Puno, on the lake, he proceeded north to Cuzco, Ayacucho, Huancayo, and returned to Lima. During this trip, which consumed some 2 to 3 weeks during the month of September, he visited numerous archeological sites. The most significant of these was the great architectural cluster at Huari near Ayacucho, the presumed center for the Middle Period Tiahuanacoid diffusion throughout Peru.

Upon his return to the United States in October Dr. Willey prepared several short papers and began the initial work of organizing notes, maps, and photographs on the Virú settlement-pattern study. He was engaged in this until April of 1947. For the last 3 months of the fiscal year he transferred his research interests toward the completion of a large monograph on the archeology of the Florida Gulf coast. This latter work, which embraces earlier field work of the author, as well as past field studies made by the Bureau in the Florida Gulf area, is intended as an over-all archeological summary of the region.

During the year Dr. Willey also served as assistant editor to the professional journal, *American Antiquity*, and submitted various news items on recent researches in archeology in South America. He held a similar position with the *Handbook of Latin American Studies* for which he prepared bibliographic extracts on some 50 titles dealing with South American archeology and wrote a general summary of recent archeological activities for the South American Continent during the year 1945.

In April Dr. Willey visited the Public Museum at Rochester, N. Y., where he delivered a lecture on the Virú work before the annual meeting of the New York State Archeological Society.

The following articles were written by Dr. Willey during the fiscal year 1946-47:

1. The Virú Valley Program in Northern Peru. *Acta Americana*, vol. 4, No. 4, 1946.
2. A Middle Period Cemetery in the Virú Valley, Northern Peru. *Journ. Washington Acad. Sci.*, vol. 37, No. 2, 1947.
3. Ecuadorean Figurines and the Ceramic Mold in the New World. (In press.)
4. Growth Trends in New World Cultures. (In press.)
5. An Interpretative Analysis of Horizon Styles in Peruvian Archeology. (In press.)

In addition, one book review was prepared for *Science*.

INSTITUTE OF SOCIAL ANTHROPOLOGY

The Institute of Social Anthropology was created in 1943 as an autonomous unit of the Bureau of American Ethnology to carry out cooperative training in anthropological teaching and research with the other American Republics. During the past year it was financed by transfers from the State Department, totaling \$113,150, from the appropriation "Cooperation with the American Republics, 1947." The major activities of the Institute of Social Anthropology during the fiscal year 1947 are as follows:

Washington office.—The Institute of Social Anthropology maintains headquarters in Washington for general planning, direction, and servicing of field projects. Dr. Julian H. Steward, founder and first Director of the Institute, resigned in September 1946 to accept a professorship at Columbia University. He was succeeded by Dr. George M. Foster, previously stationed in Mexico as social anthropologist of the Institute of Social Anthropology.

Brazil.—Cooperation with the Escola Livre de Sociologia e Politica began October 1, 1945, when Dr. Donald Pierson was assigned as representative of the Institute of Social Anthropology to Brazil. In February 1946 Dr. Kalervo Oberg was assigned as cultural anthropologist to cooperate with the Escola Livre.

In effect, the Institute has taken over and expanded a program which was begun under Dr. Pierson in 1940 and which has helped make the Escola Livre one of the most important social-science centers in South America.

During the fiscal year 1947 Institute of Social Anthropology scientists have given seven courses in sociology and anthropology, to supplement other courses given by local professors in the general field of the humanities. Advanced students have been given field training both in Mato Grosso among Indian groups, and among the rural peoples in the State of São Paulo, some distance from the city. This represents a very considerable educational advance, since for the first time advanced Brazilian students in anthropology and sociology, as a part of their regular courses, have been required to supplement theoretical classroom training with actual field experience. A number of papers by Smithsonian personnel and local students have been published in scientific series or journals other than Smithsonian volumes. Two monographs based on field work in 1947 are being prepared for publication by Smithsonian personnel in Smithsonian series, and Brazilian students also are preparing field notes for publication in Portuguese.

Smithsonian staff members have continued to guide the program of translating 200 articles and 13 books from English into Portuguese,

mentioned in last year's report. This work, financed by outside funds, is of great importance as an aid to teaching.

Colombia.—Cooperation with the Instituto Etnológico of the University of Cauca in Popayán began December 1, 1946. The Institute of Social Anthropology is represented by Dr. John H. Rowe who is engaged in cooperating with local personnel in the organization of this new institution and in giving three courses in anthropology to students. A short survey of the habitat of the Guambiano Indians has indicated that this is a satisfactory region for field work, which begins on a cooperative basis during the summer of 1947, with the participation of Colombian professors and students.

Mexico.—Cooperation with the Escuela Nacional de Antropología, a dependency of the Ministry of Education, began June 1, 1944. Dr. George M. Foster, social anthropologist, was replaced by Dr. Isabel Kelly, when the former was transferred to Washington. Dr. Stanley S. Newman, linguist, and Dr. Robert C. West, cultural geographer, are the other two Institute of Social Anthropology representatives in Mexico.

During the fiscal year 1947 these scientists have given five courses in social anthropology, linguistics, and cultural geography. The scene of field research was shifted in January 1947 from the Tarascan area, described in last year's report, to the Totonac Indian area east of Mexico City. Two monograph-length papers dealing with the Tarascans have been submitted by Smithsonian personnel for publication in the series of the Institute of Social Anthropology. A number of student papers have appeared in Mexican sources, and longer monographs in Spanish are ready for publication.

Peru.—Work began in Peru in January 1944, when that country had no institution devoted essentially to social science teaching and research. Subsequently a national center of social science, the Instituto de Estudios Etnológicos, of the Ministry of Education, has been established. Institute of Social Anthropology personnel cooperate with this Institute. During 1947 the Institute of Social Anthropology was represented in Peru by F. Webster McBryde, cultural geographer, and Dr. Allan Holmberg, social anthropologist, who arrived in July 1946 to succeed Dr. Harry Tschopik, Jr.

A party of six students and one professor accompanied Institute of Social Anthropology personnel to the Virú Valley in northern Peru for ethnographical and geographical field work during the months January to April 1947. Under the guidance of the Smithsonian scientists this material is now being prepared for publication. Courses also are being given in the Instituto de Estudios Etnológicos. In addition, the cultural geographer has aided in the reorganization of the

Geographical Society of the University of San Marcos in Lima, and in establishing the teaching curriculum of this department.

Publications.—One monograph of the series Publications of the Institute of Social Anthropology appeared in June 1947—Publication No. 3, Moche, a Peruvian Coastal Community, by John Gillin. Publication No. 4, Cultural and Historical Geography of Southwest Guatemala, by Felix Webster McBryde, Publication No. 5, Highland Communities of Central Peru: A Regional Survey, by Harry Tschopik, Jr., and Publication No. 6, Empire's Children: the People of Tzintzuntzan, by George M. Foster, were in proof. Publication No. 7, Cultural Geography of the Modern Tarascan Area, by Robert C. West, and Publication No. 8, Sierra Popoluca Speech, Mary L. Foster and George M. Foster, were edited and sent to the printer. Mrs. Eloise B. Edelen of the editorial staff of the Bureau of American Ethnology, did the editorial work on these publications.

RIVER BASIN SURVEYS

The River Basin Surveys were instituted in the fall of 1945 as a unit of the Bureau of American Ethnology. They were organized to carry into effect a memorandum of understanding between the National Park Service and the Smithsonian Institution. This memorandum provided for surveys to determine the extent and nature of archeological and paleontological remains occurring in areas to be flooded by the construction of dams by the Bureau of Reclamation and the Corps of Engineers, United States Army. The memorandum was signed on August 7, 1945, by Newton B. Drury, Director of the National Park Service, and on September 8, 1945, by Alexander Wetmore, Secretary of the Smithsonian Institution, and was approved by Harold L. Ickes, Secretary of the Interior, on October 9, 1945.

The first actual field work got under way in July 1946. A transfer of \$20,000 at the end of May 1946, by the Bureau of Reclamation through the National Park Service, provided the necessary funds for starting survey parties in the Missouri Basin. An additional \$40,000 subsequently was made available by the Bureau of Reclamation for work in this area during fiscal 1947. In September 1946 \$27,000 was transferred by the Corps of Engineers, through the National Park Service, for surveys outside of the Missouri Basin, and in March 1947 \$4,500 was transferred by the Bureau of Reclamation for surveys in the Columbia-Snake Basin. The Missouri Basin funds were for use in both Bureau of Reclamation and Corps of Engineers projects. The money provided by the Corps of Engineers was for Corps of Engineers projects only, while the Columbia-Snake Basin money was for use only in Bureau of Reclamation projects.

The first survey parties were started in the Missouri Basin. These were followed by investigations in Georgia, Virginia-North Carolina, Texas, California, and the Columbia-Snake Basin. Supervision and direction of the surveys in Georgia, Virginia-North Carolina, Texas, and California were carried on from the main office in Washington. Direction of the work in the Missouri Basin was from a field office located at Lincoln, Nebr., and the Columbia-Snake Basin investigations were based on a field office established at Eugene, Oreg.

The Bureau of Reclamation and the Corps of Engineers made the entire salvage program possible through the transfer of funds, but in addition both agencies contributed in no small degree to the successful inception of the surveys through their cooperation in other ways. Division and District Engineers and Bureau of Reclamation personnel did much to facilitate the work of the survey men in the field. In some areas transportation was provided, in others, necessary labor was furnished to aid in emergency excavations, and elsewhere temporary office space and storage facilities were made available at project headquarters. The genuine interest and desire to assist on the part of all with whom the members of the River Basin Surveys staff were associated in the various reservoir areas greatly aided the progress of the investigations. The planning of a Nation-wide archeological survey on a scale hitherto not believed possible became feasible with the transfer of funds. The cooperation of the National Park Service has been of marked benefit to the program and much credit is due to its officials for the obtaining of the the necessary funds and for the pleasant relationship existing between all the agencies involved in the program.

Washington office.—Throughout the fiscal year the main office of the River Basin Surveys continued under the direction of Dr. Frank H. H. Roberts, Jr. Carl F. Miller, archeologist, joined the staff on November 6, 1946. Miss Madeleine A. Bachand was appointed clerk-stenographer on March 3, 1947, and continued to serve throughout the year.

Mr. Miller was preparing to leave for the Pearl River project at Bogalusa, La., on November 13, 1946, when a request was received from the district engineer to postpone this work indefinitely because the project had been stopped. Mr. Miller was then assigned to the study of proposed projects in the Middle Atlantic Division of the Corps of Engineers. He devoted his time to searching the literature for information about sites which might be involved by construction programs in Pennsylvania, Virginia, North Carolina, and West Virginia. During this period he also assisted the director in obtaining information about proposed projects of the Bureau of Reclamation in various parts of the country outside the Missouri Basin. On February 11,

1947, he left Washington for Richmond, Va., to confer with the officials at the Region 1 office of the National Park Service. From Richmond he proceeded to Norfolk, Va., on February 13, to confer with the district engineer, Corps of Engineers, about a survey of the Buggs Island project on the Roanoke River. He left Norfolk on February 14 and went to South Hill, Va., where he established headquarters. From that date until May 4 he surveyed all the Virginia and part of the North Carolina portion of the reservoir basin. He then returned to Washington and devoted the remainder of the fiscal year to preparing a preliminary report on the results of the survey and making recommendations and estimates for an excavation program in that area.

Missouri Basin.—The first steps in initiating investigations in the Missouri Basin were the establishment of field headquarters at Lincoln, Nebr., and the assembling of personnel to undertake the field surveys. Dr. Waldo R. Wedel, associate curator of archeology, United States National Museum, who had been detailed to the River Basin Surveys for that purpose, left Washington for Lincoln, Nebr., on July 8, 1946, and upon his arrival there began instructing the personnel recruited for the project and assembling equipment needed in the field. Through the courtesy of the University of Nebraska, office space was provided at the University's Laboratory of Anthropology. Later, additional space was made available for a laboratory. This arrangement continued throughout the year, and on June 30, 1947, both the field office and the project laboratory were housed in the basement of the Love Memorial Library on the university campus.

Actual reconnaissance started on August 3, 1946, and continued for a period of 7 weeks, at the end of which weather conditions made it necessary for the men to return to field headquarters. During this time, 3 parties of 2 men each, limited because of inadequate transportation, covered more than 13,000 miles and made preliminary investigations at 28 top priority Bureau of Reclamation projects and at 5 Corps of Engineers reservoirs. Since complete coverage of each reservoir basin was in no case possible, additional surveys were recommended for most of the units visited. One field party returned to the Harlan County Reservoir, Nebr., for a period of 5 weeks, October 16 to November 23, 1946, and with the aid of local labor tested a number of sites and removed material which was being damaged by erosion or being excavated by unauthorized collectors.

Dr. Waldo R. Wedel returned to Washington and to his regular duties at the National Museum on October 18, 1946. At this time Paul L. Cooper was designated as acting director for the Lincoln office and continued to serve in that capacity until May 21, 1947, when Dr. Wedel, who had again been detailed to the Surveys, returned to Lincoln and resumed his supervision of the Missouri Basin program.

During the fall and winter months at Lincoln the staff members prepared and completed preliminary appraisal reports covering 25 of the projects visited during the 1946 field season. By June 30 most of these reports had been distributed to the National Park Service, the Bureau of Reclamation, and the Corps of Engineers, or were ready to be mailed. A general paper entitled "Prehistory and the Missouri Valley Development Program: Summary Report on the Missouri River Basin Archeological Survey in 1946," written by Dr. Wedel, was published in April in the Smithsonian Miscellaneous Collections, volume 107, No. 6. Throughout this period the field laboratory cleaned and cataloged more than 10,000 archeological specimens gathered from 208 different sites, and in addition processed 426 photographic negatives and prepared approximately 2,200 prints for use in the reports. Maps were drawn showing the location of sites in each reservoir area, and the reports were mimeographed, assembled, and made ready for distribution.

Field work was resumed in the latter part of April when three archeological parties consisting of four men each and one paleontological party consisting of one man, started for various reservoir projects. The paleontologist subsequently was joined by a student assistant. In addition to further investigations in reservoir areas visited during the 1946 field season, other projects were added to the list, and by the end of the fiscal year a total of 44 Bureau of Reclamation and 6 Corps of Engineers projects had been surveyed. They are located in the States of Kansas, Nebraska, South Dakota, North Dakota, Wyoming, and Montana. All parties were in the field on June 30 and expected to continue throughout the summer. During this period Dr. Wedel directed operations in the Lincoln office and made several visits to the field parties at the locations where they were working. He also attended conferences between the regional officers of the National Park Service and Bureau of Reclamation and Corps of Engineers representatives.

The survey findings to date indicate that the Wyoming-Montana area contains few pottery-bearing sites. There, as in the western Dakotas, stone circles or "tipi-rings" are to be found in great numbers. Numerous outcrops of artifacts in strata exposed by stream cuttings are plentiful and occur at varying depths below the surface. Some of them give promise of containing material belonging to early occupations, possibly even those of the Paleo-Indian, and they may supply much needed data on that phase of Plains prehistory. Throughout northern Kansas and northwestern Nebraska pithouse villages attributed to semisedentary peoples predominate. Pottery-bearing sites as well as "tipi-rings" occur on the tributaries of the Missouri in North and South Dakota. Groups of mounds, village remains, and former camp sites suggesting a more sedentary type of

occupation than that west of the Missouri occur in the Jamestown-Devils Lake-Sheyenne area. Along the main stream of the Missouri in the Dakotas are some of the largest and best preserved and most impressive fortified Indian village sites in the United States. They contain much of the story of the development of Arikara, Mandan, and other upper Missouri cultures.

In many of the sites there is evidence of stratification and a sequence of cultures or a series of stages in cultural development. Others contain the record of prehistoric floods, of silting and soil erosion, of recurrent droughts, and fluctuation in climate. The excavation and the interpretation of the data contained in such sites will contribute greatly, not only to the story of the growth and development of the Plains Indians, but to our understanding of conditions similar to those met and overcome by the aboriginal peoples. For this reason the excavation and testing of several sites in three Bureau of Reclamation reservoirs was recommended for the fiscal year 1948, and for two important sites at one Corps of Engineers project.

J. Joseph Bauxar, archeologist, joined the Missouri Basin staff on July 15, 1946. From that date until August 3 he devoted his time to obtaining information on archeological remains in the Dakotas, from reports on previous excavations and surveys in that area, and in making preparations for work in the field. From August 3 until September 22, in company with Paul L. Cooper, he engaged in a preliminary reconnaissance of reservoir projects in Nebraska, South Dakota, North Dakota, and Montana. In these reservoir basins a total of 68 sites were examined, site locations and descriptions being recorded and surface collections made. During the laboratory period, from September 22 until April 24, 1947, Mr. Bauxar prepared preliminary reports for seven of the reservoirs, Angostura, Box Butte, Bronco, Crosby, Deslacs, Fort Randall, and Jamestown, and prepared a technical report entitled "Notes on the Archeology of the Upper James and Sheyenne River Valleys and the Devils Lake Area." From April 24 until May 7 he joined Wesley L. Bliss in preliminary surveys of three reservoirs in Kansas, one in Colorado, and five in Nebraska. During this period 25 sites, none of which had been recorded previously, were visited. From May 7 to June 2 the time was spent in collaborating with Wesley L. Bliss and Theodore E. White on a report entitled "Preliminary Appraisal of Archeological and Paleontological Resources of the Proposed Reservoirs in the Republican River Basin." On June 2 Mr. Bauxar left Lincoln, as a member of the field party under the direction of Paul L. Cooper, to make a reconnaissance of the Fort Randall Reservoir in South Dakota. This work was still in progress at the end of the fiscal year.

Wesley L. Bliss was appointed to the Missouri Basin staff as an archeologist on July 17, 1946. From July 17 to August 4 he was occupied in making preparations for field reconnaissance in Wyoming and Montana. He left Lincoln on August 4 and returned on September 22. In this period his party made preliminary surveys in six reservoir areas in Wyoming, one which lies both in Wyoming and Montana, and three in Montana. A total of 74 archeological and paleontological sites were found and recorded, and surface collections were made from each. The fall and winter months, September 22, 1946, until April 24, 1947, were spent at the Lincoln headquarters doing laboratory and library research and in writing preliminary reports. Reports were prepared for the Boysen, Tiber, and Medicine Lake Reservoirs. In addition, Mr. Bliss prepared a draft of a paper entitled "A Preliminary Appraisal of the Historic and Prehistoric Occupation of the Western Plains." Some revision and the checking of some material were needed to complete the paper. In the early spring of 1947 Bliss made several unofficial week-end visits with other members of the staff to archeological sites along the Missouri, north of Kansas City, and on the Big Blue River in Nebraska. These were for the purpose of obtaining a wider knowledge of archeological manifestations in the area. In one case the trip was instrumental in stopping the destruction of a group of mounds in the path of a real-estate subdivision. From April 24 to May 7, 1947, Mr. Bliss, in association with J. Joseph Bauxar, as previously noted, made a reconnaissance of nine proposed reservoirs in Kansas, Colorado, and Montana. He assisted in the preparation of the report on the Smokey Hill Sub-basin. On June 10 Mr. Bliss left Lincoln in charge of a field party and proceeded to the Glendo Reservoir in Wyoming where the remainder of the month was devoted to an intensive survey. At the end of the fiscal year, 30 sites had been located in addition to the ones noted during the preliminary reconnaissance in the summer of 1946.

Paul L. Cooper, archeologist, became a member of the Missouri Basin staff on July 15, 1946. Between that time and August 3 he assisted in the preparations for work in the field and made two trips to Omaha with Dr. Wedel for the purpose of consultation with members of the National Park Service and the Corps of Engineers. On August 3 he left Lincoln with J. Joseph Bauxar to make preliminary surveys at reservoir sites in Nebraska, South Dakota, North Dakota, and Montana. As previously noted, 68 archeological and paleontological sites were located during the course of this survey. Mr. Cooper returned to the Lincoln headquarters on September 22, and from October 7, 1946, to May 21, 1947, was in charge of the operation of the office and laboratory. During this period he planned and supervised the work of the project personnel, compiled monthly progress reports for the

National Park Service and the Bureau of Reclamation, assisted in the setting up of record systems in the laboratory and in establishing methods for issuing the reports based on the field work and laboratory studies. Owing to a shortage of personnel, it was necessary for Mr. Cooper to devote much of his time to direct supervision and to many of the actual operations involved in mimeographing and distributing the preliminary appraisals of the archeological and paleontological resources of the various reservoirs. In May Mr. Cooper represented the River Basin Surveys at a symposium on the River Valley program conducted by the Nebraska Academy of Sciences. During the period May 21 to June 2, 1947, Mr. Cooper prepared reports on Heart Butte, Dickenson, Deerfield, Shadehill, Blue Horse, Sheyenne, and Garrison Reservoirs, and on the Devils Lake area. Mr. Cooper left Lincoln on June 3, 1947, in charge of a field party which was to undertake a preliminary reconnaissance of the Fort Randall Reservoir on the Missouri River in South Dakota. This reconnaissance was still in progress on June 30, at which time 60 archeological sites had been located and recorded.

Robert B. Cumming, Jr., archeologist, was added to the staff as laboratory supervisor at the Lincoln headquarters on October 1, 1946. Since the laboratory was then being moved to new quarters in the basement of the Love Memorial Library building, Mr. Cumming began work by assisting in the formulation of the laboratory plan and placing the equipment in order so that routine work could proceed. During the fall and winter months he assisted in planning and initiating basic laboratory methods. A triplicate filing system was devised in which information covering approximately 175 sites was filed in a site file, a reservoir file, and a reserve file. A photographic file system was organized wherein prints were mounted on 5- by 8-inch cards bearing descriptive information and were filed in accordance with a standard trinomial system consisting of symbols for the State, county, and site. The negatives were filed in a separate cabinet using the same system for identification. Mr. Cumming also formulated the system for cleaning, cataloging, and storing the specimens and assisted in initiating an inventory procedure for equipment and supplies which he maintained throughout the year. In addition, he assisted in supervising the maintenance of equipment. He also assisted in the work and supervision of the preparation of illustrations, drafting of site maps, typing, mimeographing, proofreading, and assembling of the preliminary reports. During such times as the field directors were absent from the headquarters office, he handled the business routine in the office. At the close of the fiscal year Mr. Cumming was engaged in processing the records sent in from the field for 50 sites located after resumption of the survey work. Because the laboratory was under-

staffed during much of the year, it was necessary for Mr. Cumming to perform tasks which should have been done by laboratory workers. This condition was relieved somewhat during the last few weeks of the fiscal year when several part-time workers were added to the staff. This enabled Mr. Cumming to devote more time to the technical aspects of the laboratory problem.

Jack T. Hughes, archeologist, was appointed to the Missouri Basin staff on July 15, 1946. From then until August 4 he assisted in the preparations for field work and received instructions as to the manner in which the surveys were to be conducted. On August 4 he left Lincoln with Wesley L. Bliss for a preliminary reconnaissance of Bureau of Reclamation reservoir sites in Wyoming and Montana. He returned to Lincoln on September 22 after having assisted in the examination of the 10 reservoirs previously mentioned in the discussion of the work of Mr. Bliss. During the period from September 22, 1946, to May 3, 1947, Mr. Hughes engaged in library research, laboratory analysis of specimens, and the preparation of reports. Preliminary appraisals were written for the Glendo, Kortes, Boysen, Anchor, Lake Solitude, and Oregon Basin Reservoirs in Wyoming, the Yellowtail Reservoir in Wyoming and Montana, and the Canyon Ferry Reservoir in Montana. Technical reports were also written for Glendo, Kortes, Boysen, Anchor, Oregon Basin, and Yellowtail. From May 3 to May 12, 1947, Mr. Hughes participated with Marvin F. Kivett, in a brief reconnaissance of seven proposed reservoir sites in the Lower Platte Basin of Nebraska. After his return to Lincoln, he assisted in the preparation of the preliminary appraisal of the archeological resources of this group of reservoirs in the Lower Platte Basin of Nebraska. On June 10 he left Lincoln with the field party under Wesley L. Bliss and spent the remainder of the month at the Glendo Reservoir in eastern Wyoming.

Marvin F. Kivett joined the Surveys staff on July 15, 1946, as archeologist. On August 2 he left Lincoln to make a reconnaissance of eight reservoir areas in Kansas, Nebraska, and Colorado. This work continued until September 20, 1946, when he returned to Lincoln. In the course of 7 weeks spent in the field, a total of 75 archeological sites were recorded in the 8 reservoir areas; 60 of these sites were unreported prior to the reconnaissance. On October 16 Mr. Kivett went to the Harlan County Reservoir, Nebr., where he carried on an extensive survey until November 23. This included excavation in a prehistoric ossuary and limited test excavations in four occupational areas. This work produced much information on the nature of the archeological remains in the area. From November 24, 1946, to May 2, 1947, Mr. Kivett worked at headquarters in Lincoln writing preliminary appraisals of the resources of the eight reservoirs visited during the

summer field season and in analyzing the data and specimens collected and in preparing technical reports. The preliminary reports completed and mimeographed for distribution were on the Kirwin, Cedar Bluff, and Kanopolis Reservoirs in Kansas; the Enders, Harlan County, and Medicine Creek Reservoirs in Nebraska; and the Cherry Creek and Wray Reservoirs in Colorado. Mr. Kivett left Lincoln on May 3, 1947, in company with Jack T. Hughes. From then until May 19 they made a preliminary reconnaissance of six reservoirs in the Lower Platte River Sub-basin. A total of 19 previously unreported archeological sites were located during this period. After his return to Lincoln, Mr. Kivett prepared preliminary reports on the Lower Platte River Basin including all the information obtained from the six reservoirs visited. The period from June 1 to June 9 was spent in preparing for a preliminary reconnaissance of the Garrison Reservoir in North Dakota. Mr. Kivett and his party left Lincoln for North Dakota on June 9, and at the end of the year they were engaged in a survey of the Garrison Reservoir.

Theodore E. White, paleontologist, was appointed to the general River Basin Surveys staff on April 15, 1947. From that date until April 26 he devoted his time to studying collections of fossil material from the Missouri Basin in the United States National Museum. On April 27 he left Washington for Lincoln, Nebr., and on April 29 joined the Missouri Basin staff. He left Lincoln on May 2 and spent 6 days in a reconnaissance of proposed reservoir areas in the Lower Platte Sub-basin in north central Nebraska. During this time he visited seven reservoir basins finding fossil remains in only one. These were reworked material of little scientific value. Dr. White returned to the Lincoln headquarters on May 9 and left on May 13 to make a reconnaissance of the Republican and Smokey Hill Sub-basins in southwestern Nebraska, Kansas, and Colorado. This work continued until June 6, during which time he visited nine reservoirs in Nebraska, eight in Kansas, and two in Colorado. Seven of these sites were recommended for a more detailed survey on the basis of material found and the extent of the exposures. From June 6 to June 13 Dr. White worked at the Lincoln headquarters preparing reports and recommendations for the various reservoirs which he had examined. On June 13 he left Lincoln to examine proposed reservoir areas in the North Platte Sub-basin in Wyoming, the Cheyenne River Sub-basin in Wyoming and South Dakota, and smaller sub-basins in North and South Dakota. This reconnaissance lasted until June 28, and during the period three reservoirs were visited in Wyoming, six in South Dakota and four in North Dakota. Three of the reservoirs were recommended for more detailed investigation. White returned to Lincoln on June 28 and at the end of the fiscal year was preparing to start for further survey work in Wyoming and Montana.

Several students were employed as members of the various field parties for the Surveys beginning in June 1947. Robert L. Hall and Warren L. Wittry left Lincoln on June 2 with the Cooper party for the Fort Randall Reservoir in South Dakota, and at the end of the fiscal year were occupied in the survey of that area. John L. Essex, Gordon F. McKenzie, and Leo L. Stewart left Lincoln on June 9 as members of the Kivett party to make a reconnaissance of the Garrison Reservoir area in North Dakota. Mr. Essex had previously assisted Mr. Kivett in the work at the Harlan County Reservoir, Nebr., in November 1946. H. G. Pierce joined the Bliss party and left Lincoln on June 10 to assist in the survey at the Glendo Reservoir in Wyoming. He was still with the party at the end of the fiscal year. John C. Donohoe was employed on June 27 to assist the paleontologist, Dr. Theodore E. White.

Georgia.—Intensive survey of the Allatoona Reservoir area on the Etowah River in Georgia was carried on during the period November 12, 1946, to April 1, 1947. This survey was made by Joseph R. Caldwell, of the Division of Archeology, United States National Museum, who was detailed to the River Basin Surveys for that purpose. Caldwell located 206 archeological sites representing a record of thousands of years of diverse human cultures. Information obtained from this survey has added materially to the aboriginal history of that part of Georgia. Full knowledge, however, cannot be gained without excavation of some of the sites and the testing of others. In view of this the preliminary report, prepared by Mr. Caldwell and distributed to the National Park Service and the Corps of Engineers, recommends the excavation of 10 sites and the testing of 33 others. A request for further funds for this purpose has been made by the National Park Service to the Corps of Engineers, but at the end of the fiscal year no response had been received to the request. The specimens collected from the sites examined during the course of this survey were transferred to the National Museum on April 17, 1947.

Virginia-North Carolina.—The archeological reconnaissance of the Buggs Island project on the Roanoke River was carried on during the period of February 14 to May 1, 1947. This work was under the supervision of Carl F. Miller of the River Basin Surveys staff. During the course of the investigations, 94 archeological sites were located, 2 of which are extremely important as they appear to represent an eastern phase of the so-called Folsom culture which flourished in the western plains during the closing days of the last Ice Age. Other sites are pre-Colonial and some date from the early Colonial period. The latter are significant as they contain material characteristic of the late seventeenth-century contact with European culture and their investigation would throw considerable light on this little-known era. Excavation of 14 sites including the 2 eastern Folsom examples and the testing of

5 others has been recommended. A preliminary report on the Buggs Island Reservoir was completed but had not been processed for distribution at the end of the fiscal year.

Texas.—River Basin Surveys were started in Texas in March 1947 when, through the kindness and cooperation of the authorities, a field base and headquarters were established at the Department of Anthropology of the University of Texas at Austin. A survey of the Addicks Reservoir on South Mayde Creek, a tributary of Buffalo Bayou, near Houston, got under way March 27 and was still in progress at the close of the fiscal year. The Addicks project is not a reservoir in the true sense of the word, but a flood-prevention dam which will not retain water in its basin for more than 2 or 3 weeks at a time. As a consequence, most of the sites located in the basin will be available for study or excavation during most of the year. A series of nine sites were found, however, which were being destroyed by stream action, by construction work on the dam, or by indiscriminate and unauthorized digging. As a consequence, it was necessary to shift from a reconnaissance type of survey to an intensive testing procedure to salvage as much information as possible. Six of them were examined by digging a number of test pits in various portions of the areas which they covered, and subsequently two of the six were extensively excavated. The cooperation of the district engineer, Col. D. W. Griffiths, in supplying a crew of 10 men and a foreman for a period of several weeks made these excavations possible. One of the excavated sites consisted of a stratified midden containing a sequence of several cultural horizons. Work on the site was started on May 29 and completed on June 13. The second was started on June 16 and was still being dug at the end of the fiscal year. The information and material from these two sites will provide a fairly complete sequence showing the development of aboriginal culture in this area over a comparatively long period of time. During this period, the Indians progressed from a simple hunting group to a sedentary agricultural and pottery-making people. The data obtained are a significant contribution to the hitherto little-known pre-Columbian history of this part of Texas.

The Hords Creek Reservoir on Hords Creek, near Coleman, was surveyed during the period May 6 to May 17, 1947. Only eight sites were found in the reservoir basin. Six of them were burned rock middens and two were open camp sites. None gave indication of being of sufficient importance to warrant further investigation. Comparable material is available elsewhere in locations which will not be inundated. Unless construction work should reveal subsurface deposits of archeological material, no additional work will be required in this reservoir.

The Whitney Dam area on the Brazos River north of Waco was started on May 20 and was still in progress at the end of the fiscal

year. By June 30 a little over half of the basin had been covered. Numerous sites had been located and recorded, and a number had been trenched for additional information. Several small rock shelters were excavated to salvage material which was being disturbed by unauthorized collectors. Two laborers for digging test trenches and for excavating in the shelters were supplied by the resident engineer. The Brazos flows through an important archeological and paleontological area in Texas and much information is contained in the sites which will be flooded by the Whitney Dam. On the basis of data already obtained by the survey, a number of key sites will be recommended for excavation.

Joe Ben Wheat, archeologist, was appointed to the Surveys in Texas on March 20, 1947. He left Austin on March 25 for Galveston where he conferred with the district engineer and obtained information about the priority of various Corps of Engineer projects in Texas. From Galveston he proceeded to the Barker Reservoir near Houston. He found that the project was so near completion that there was no possibility of salvaging archeological information from that area. Construction on the Barker Dam had completely destroyed one large mound and obliterated any evidence of occupation areas. As a consequence he proceeded to the nearby Addicks Dam and began a survey of that area. After learning that much of the reservoir basin would be under water only at rare intervals, Mr. Wheat turned his attention to six sites in the immediate vicinity of the dam which would be destroyed either as a result of construction or by erosion from stream action. All these were tested, and from the information thus obtained he concluded that two of them should be excavated as they contained a sequence of materials showing a number of cultural changes. In this connection he went to Galveston on May 20 and conferred with Colonel Griffiths, the district engineer. As a result of this conference, Mr. Wheat was furnished an excavation crew, transportation, and the equipment necessary for conducting the excavations. He returned to Addicks on May 22, and was able to begin actual excavations on May 29. Digging was still in progress on June 30.

Robert L. Stephenson, archeologist, joined the Surveys in Texas on April 28. From that date until May 5 he worked at Austin, conferring with members of the Museum staff at the University, studying collections of archeological material, and making preparations for field reconnaissance. He left Austin on May 6 for the Hords Creek Reservoir. From May 7 through May 17 he examined the Hords Creek Reservoir Basin, locating and recording eight archeological sites. On May 18 he left Coleman for Waco where he conferred with Frank H. Watt, of the Central Texas Archeological Association, obtaining information about archeological sites along the Brazos River, and

particularly in the area to be flooded by the Whitney Dam. On May 19 he went to Whitney and conferred with the Resident Engineer. On May 20 he began the actual survey of the Whitney Dam area and continued with that work to the end of the fiscal year. During the course of his investigations he interviewed numerous local residents, obtaining all the information possible pertaining to the occurrence of archeological sites, and studied collections of artifacts which had been gathered from sites in the area. In addition he made note of various historic remains and obtained such data as were available about them. This information was forwarded to the regional office of the National Park Service at Santa Fe, N. Mex., for the benefit of the Park Service historians.

California.—Archeological surveys were started in California in May 1947. Through the cooperation of the Department of Anthropology of the University of California, at Berkeley, headquarters for the Surveys were made available. During the period from March 21 through June 28, 1947, six Corps of Engineers proposed reservoir basins were surveyed. They were Pine Flat on King's River, Terminus on Kaweah River, Success on Tule River, Isabella on Kern River, Folsom on American River, and Coyote Valley on the east fork of the Russian River. A total of 59 sites were located, and of this number 8 have been recommended for excavation or partial excavation.

Some immediate contributions to the archeological knowledge of California were derived from the surveys. Two aboriginal soapstone quarries and three pictograph sites, none of which had been described previously in archeological literature, were located. Surface collections of sherds of the unique and little-known Yokuts-Mona pottery will permit a more extensive description of the type from archeological sources than has previously been possible.

Franklin Fenenga, archeologist, was appointed to the California surveys on March 21. He made all the surveys in the six reservoirs listed above, prepared the preliminary reports on their archeological resources, and made recommendations for further work. On June 28 Mr. Fenenga left Berkeley, Calif., for Eugene, Oreg., and at the end of the fiscal year was starting a survey of the Detroit Reservoir in the Willamette Valley.

During the course of the surveys in California Mr. Fenenga employed several student assistants. Stephen C. Cappannari served in that capacity from May 8 to 11 inclusive; Francis A. Riddell, May 29–June 1, and June 12–15; Harry S. Riddell, Jr., April 17–20; and Clarence E. Smith, April 1–6, May 1–4 and 19–25.

Columbia-Snake Basin.—The program for surveys in the Columbia-Snake Basin was just getting under way at the close of the fiscal year. Dr. Philip Drucker, anthropologist on the regular staff of the Bureau

of American Ethnology, was detailed to the River Basin Surveys for the purpose of directing the work in this area. On June 30 he had established field headquarters at Eugene, where the Department of Anthropology of the University of Oregon provided office and laboratory space. Two field parties left Eugene on the morning of June 30, one to make a reconnaissance of the Detroit Reservoir, a Corps of Engineers project on the North Santiam River, in the Willamette Valley, Oreg., and the other to make investigations at the Cascade Reservoir on the North Fork Payette River in Idaho. Plans for the summer called for the survey of 4 Corps of Engineers and 12 Bureau of Reclamation projects.

Dr. Drucker left Washington on June 17, 1947, for San Francisco, Calif. He spent the day of June 18 at Lincoln, Nebr., studying the operational procedure being used in the Missouri Basin surveys and the laboratory arrangements for processing and cataloging specimens received from the field. He arrived in San Francisco on the 19th and spent the following 2 days in conference with the regional officers of Region 4 of the National Park Service and members of the Department of Anthropology at the University of California in Berkeley. On June 22 he left San Francisco for Portland, Oreg., arriving on the 23d. At Portland he spent 2 days discussing plans for the surveys with Regional Archeologist Louis R. Caywood of the National Park Service, regional officials of the Bureau of Reclamation, and representatives of the district engineer of the Corps of Engineers. At this time he also made arrangements for the field headquarters at Eugene. He returned to San Francisco on June 24 and reported the results of his trip to Portland to the regional office of the National Park Service. He also recruited personnel for the field parties and made arrangements for the shipment of equipment from Berkeley to Eugene. He left Berkeley on June 28, arriving at Eugene, Oreg., on the 29th. He left Eugene on June 30 with the field party proceeding to the Cascade Reservoir.

Clarence E. Smith, archeologist, was appointed to the Columbia-Snake Basin surveys on June 25. He spent the following 2 days assisting Dr. Drucker and Franklin Fenenga in making preparations for the summer's field work. On June 28 he left Berkeley in company with Fenenga for Eugene, Oreg. They arrived at Eugene on the 29th and on the morning of the 30th left for the Detroit Reservoir.

Richard D. Daugherty, archeologist, was appointed to the Columbia-Snake Basin staff on June 30, and left the same day for the Cascade Reservoir in Idaho.

Francis A. Riddell joined the Surveys staff on June 26, as field assistant. He left Berkeley, Calif., on June 28 and arrived at Eugene, Oreg., on June 29. On June 30 he left Eugene in company with Mr. Daugherty and Mr. Drucker for the Cascade Reservoir.

Cooperating institutions.—The River Basin Surveys have been fortunate in receiving wholehearted cooperation from local institutions in many portions of the country. Not only has space for field offices and laboratories been provided together with the assistance and advice of members of the various staffs, as at the University of Nebraska, the University of Texas, the University of California, and the University of Oregon, but in a number of cases units in the survey program have been taken over and are being worked by universities and local organizations. This active cooperation has relieved the River Basin Surveys of a considerable burden and has made for more rapid progress throughout the country as a whole.

In Pennsylvania the Pennsylvania Historical and Museum Commission helped with the program. The University of Kentucky assumed responsibility for investigations at the Wolf Creek and Dewey Reservoir projects in that State. The Alabama Museum of Natural History conducted surveys along the lower Chattahoochee River Basin in Alabama in areas which will be inundated. The Ohio State Museum at Columbus investigated Corps of Engineers projects in that State. The University of Missouri, in cooperation with the Missouri Resources Museum and the Missouri Archeological Society, started surveys and excavations in that portion of the Bull Shoals Reservoir, on the White River, which lies in Missouri and at several Corps of Engineers projects on the Osage River. The Department of Anthropology of the University of Chicago and the Illinois State Museum at Springfield agreed to cooperate in a survey of the Illinois River Basin where 17 Corps of Engineers projects are proposed. The University of Oklahoma examined and reported on two reservoirs, one of which, the Wister, will inundate extensive and important archeological material. The University of Nebraska cooperated both in the search for and the excavation of paleontological material and in archeological reconnaissance. The Nebraska State Historical Society assisted in the survey work and also did some digging in sites which will be destroyed by construction work. The South Dakota Historical Society did some survey work and also some excavation. The University of North Dakota and the North Dakota Historical Society cooperated in making a survey at the Heart Butte Reservoir and in testing a number of sites in that area. The University of Colorado assumed responsibility for a survey of eight reservoir basins in the Colorado-Big Thompson project and for more intensive investigation at the Wray Reservoir in eastern Colorado. The University of Denver planned surveys of a number of reservoirs in the Blue River-South Platte project and of two in the Arkansas River Basin south of Pueblo. Western State College took over the examination of a group of reservoirs along the Gunnison River in western Colorado.

The Archeological Survey Association of Southern California, sponsored by a number of museums in that area, started the investigation of a number of Corps of Engineers projects in southern California. The University of Washington surveyed a number of proposed reservoir basins in that State and made all the information available to the Columbia-Snake Basin group at Eugene. It also did some excavation work.

The Reports of Progress prepared by the cooperating organizations are sent to the River Basin Surveys for coordination and are then forwarded to the National Park Service. All the information obtained thus becomes a part of the record of the River Basin Surveys in general.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued one Annual Report and one Publication of the Institute of Social Anthropology, as listed below.

Sixty-third Annual Report of the Bureau of American Ethnology, 1945-46. 12 pp.

Institute of Social Anthropology Publ. No. 3. Moche, a Peruvian Coastal Community, by John Gillin. 166 pp., 26 pls., 8 figs., 1 map.

The following publications were in press at the close of the fiscal year:

Bulletin 143. Handbook of South American Indians. Julian H. Steward, editor. Volume 3: The Tropical Forest Tribes. Volume 4: The Circum-Caribbean Tribes. Volume 5: The Comparative Ethnology of the South American Indians.

Institute of Social Anthropology Publ. No. 4. Cultural and Historical Geography of Southwest Guatemala, by Felix Webster McBryde.

Institute of Social Anthropology Publ. No. 5. Highland Communities of Central Peru: A Regional Survey, by Harry Tschopik, Jr.

Institute of Social Anthropology Publ. No. 6. Empire's Children: the People of Tzintzuntzan, by George M. Foster.

Institute of Social Anthropology Publ. No. 7. Cultural Geography of the Modern Tarascan Area, by Robert C. West.

Institute of Social Anthropology Publ. No. 8. Sierra Popoluca Speech, by Mary L. Foster and George M. Foster.

Publications distributed totaled 7,948, as compared with 12,730 for the fiscal year 1945-46.

LIBRARY

The Library of the Bureau has continued in charge of the librarian, Miss Miriam B. Ketchum, assisted by M. L. Fiester, who was appointed March 17, 1947.

The total accessions in the library as of June 30, 1947, were 34,462. There were 148 new accessions during the fiscal year, by purchase, gift,

and exchange. Many of the foreign exchanges which lapsed during the war have again resumed, and good progress has been made in filling the gaps, brought about by the war, in periodical sets.

Cards on hand for domestic periodicals have been typed, and the shelf list for this classification is now complete. A beginning has been made on typing the cards for serial publications of domestic societies and institutions, and this will soon be finished.

The labeling of sets of publications of domestic societies and institutions and all the domestic periodicals has been completed, and the labeling of the foreign serial publications has begun.

ILLUSTRATIONS

From late fall of 1946 up to June 30, 1947, E. G. Cassedy, illustrator, spent most of the time, with the exception of time taken out to prepare weather graphs, work for the Editorial Division, and miscellaneous maps and plates, on the restoration of the old Indian negatives of the Bureau of American Ethnology. With the help of Mr. Brostrup this work has been progressing very satisfactorily and many negatives which were important historically and which were about to be lost have been preserved for coming generations.

ARCHIVES

Miss Mae W. Tucker continued the work of operating and cataloging the manuscript and photographic archives of the Bureau. In addition to furnishing material for routine requests, some special requests for photographic prints requiring urgent attention have been filled. Visitors desiring to consult material in the archives have been given the required assistance.

The greater part of the time has been given to work on the manuscript catalog which is being prepared for publication, to include all the unpublished manuscript material in the Bureau archives. The data for this catalog has been typed on individual cards for each item and is ready for final assembling.

A new file-print collection consisting of prints made from the re-photographed and retouched negatives in the Bureau collection has been started and will continue as the new prints are made. On Mr. Cassedy's recommendation, an extra set of prints is being made along with the file prints, this set to be preserved for possible emergency use.

Some time is necessarily required for research work in connection with both the manuscript material and the photographs.

SPECIAL PHOTOGRAPHIC RESTORATION PROJECT

The Bureau of American Ethnology ever since its inception in 1879 has maintained a collection of photographic negatives of North Ameri-

can Indians. The file had its origin with the famous "Jackson" collection of over 1,000 negatives which was brought to the Bureau by Major Powell from the directorship of the United States Geological Survey. This unique and valuable group has been supplemented by about 11,000 additional negatives obtained from various sources including the field trips of the first 40 years, the exposures made in Washington of the visiting Indian delegations, gifts, and purchases. Nowhere else in this country is there a more complete photographic record of the Indians who figured prominently in peace and war during the important opening of the West in the nineteenth century. In several instances the only known photographs of important characters of this period are in this collection.

The great bulk of this collection was made before 1900 in the early days of photography, and often under extremely adverse field conditions of heat and bulky weight. These factors have contributed toward a deterioration of the negative image. This deterioration fortunately has started around the edges of the negative and is progressing toward the center, still leaving the figure and facial characteristics quite legible. However, if allowed to go on unchecked this collection will have disintegrated unto uselessness.

During this fiscal year it was determined to inaugurate a systematic program of restoration and preservation of this unique collection. The continuous demand for reprints from these negatives, especially those being used for publication, made this restoration imperative.

In February 1947 the services of a photographer, John O. Brostrup, were obtained. The photographer and the scientific illustrator have begun the program of restoration and preservation of these negatives. The following system was devised and is being used in this work:

- (1) Chemical improvement and cleaning of the original negative.
- (2) Making a uniform enlarged print from the original negative, cropping out destroyed and objectionable background areas.
- (3) Restoration of missing areas, and improvement of backgrounds by the scientific illustrator with the minimum alteration necessary to preserve faithfully the original negative.
- (4) Copying the restored enlargement to uniform 8 by 10 inch size.
- (5) Printing of permanent file prints.

All the processing is being carried out with the intent of insuring as great a degree of permanence as possible.

First priority is being given those negatives which are needed to supply prints for pay orders, i. e., those for which there is an immediate demand. Second priority are those negatives which are in the most advanced stages of deterioration.

At the beginning of the work in February an inspection was made of each negative, and those requiring early restoration were listed.

A file of restored prints is being built up, and inspection in the offices of the Bureau of American Ethnology is invited.

COLLECTIONS

Collections transferred by the Bureau of American Ethnology to the Department of Anthropology, United States National Museum, during the fiscal year were as follows:

<i>Accession No.</i>	<i>Collection</i>
176066.	65 ethnological specimens from the Rio Vaupés in Colombia and Brazil. Collected by Paul H. Allen.
176157.	3 ethnological specimens from the Navaho Indians. Collected by Dr. John P. Harrington, at Fort Defiance, Ariz., in 1939.
176347.	1 ceremonial cane from the Iroquois Indians of Six Nations Reserve, Canada. Collected by J. N. B. Hewitt, June 1916.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the American Indians, both past and present, of both continents. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Respectfully submitted.

M. W. STIRLING, *Chief.*

Dr. A. WETMORE,
Secretary, Smithsonian Institution.

Sixty-fifth Annual Report

of the

BUREAU OF AMERICAN ETHNOLOGY

1947-1948



SMITHSONIAN INSTITUTION

WASHINGTON

D. C.

Special Report

of the

BUREAU OF AMERICAN
ETHNOLOGY

1907-1908



SIXTY-FIFTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1947-1948



UNITED STATES
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WASHINGTON : 1949

BUREAU OF AMERICAN ETHNOLOGY

Director.—MATTHEW W. STIRLING.

Associate Director.—FRANK H. H. ROBERTS, JR.

Senior ethnologists.—H. B. COLLINS, JR., JOHN P. HARRINGTON, W. N. FENTON.

Senior anthropologists.—G. R. WILLEY, P. DRUCKER.

Collaborators.—FRANCES S. DENSMORE, JOHN R. SWANTON, A. J. WARING, JR.

Editor.—M. HELEN PALMER.

Librarian.—MIRIAM B. KETCHUM.

Illustrator.—EDWIN G. CASSEDY.

INSTITUTE OF SOCIAL ANTHROPOLOGY

Director.—G. M. FOSTER, JR.

Anthropologists.—*Mexican office:* ISABEL T. KELLY, STANLEY S. NEWMAN; *Peruvian office:* GEORGE KUBLER; *Brazilian office:* DONALD PIERSON, KALervo OBERG.

RIVER BASIN SURVEYS

Director.—FRANK H. H. ROBERTS, JR.

Archeologists.—J. JOSEPH BAUXAR, WESLEY L. BLISS, JOSEPH R. CALDWELL, GEORGE L. COALE, PAUL L. COOPER, ROBERT B. CUMMING, JR., RICHARD D. DAUGHERTY, FRANKLIN FENENGA, JACK T. HUGHES, MARVIN F. KIVETT, CARL F. MILLER, CLARENCE E. SMITH, RALPH S. SOLECKI, ROBERT L. STEPHENSON, JOE BEN WHEAT, ARNOLD M. WITHERS.

Paleontologist.—THEODORE E. WHITE.

SIXTY-FIFTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, *Chief*

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1948, conducted in accordance with the Act of Congress of June 27, 1944, which provides “* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *”

SYSTEMATIC RESEARCHES

Dr. M. W. Stirling, Director of the Bureau, spent the first part of the fiscal year in Washington attending to administrative duties and in preparing a study on “Olmec Jade.”

On January 1 Dr. Stirling left for western Panamá where he spent 3½ months in the excavation of four archeological sites on the Azuero Peninsula in cooperation with the National Geographic Society. Two of these were representative of the relatively late Coclé culture. A third was a mound site representing a new culture apparently ancestral to Coclé, while the fourth site was a shell mound near the mouth of the Parita River, which was found to contain a very early and completely new culture, unrelated to anything heretofore known in Panamá. During this work Dr. Stirling was assisted in the field by Dr. Gordon Willey of the Bureau staff.

At the close of the archeological field season a brief visit was made to the Guaymí Indians in the Province of Chiriquí.

Dr. Frank H. H. Roberts, Jr., Associate Director of the Bureau and Director of the River Basin Surveys, was mainly occupied throughout the fiscal year in directing the River Basin Surveys. In connection with this work he established cooperative projects with State and local institutions in various parts of the country, aided in the preparation of preliminary reports pertaining to the results of investigations in various reservoir basins, and wrote progress reports for the cooperating agencies. He went to Lincoln, Nebr., November 26 to December 5, where he inspected the field headquarters and laboratory for the Missouri Basin project, received reports on the results of the summer's surveys in that area, and aided in the preparation of plans for evaluating and handling the material collected. While in Lincoln he attended sessions of the Fifth Plains Conference for Archeology and presided at a symposium on “The Paleo-Indian in the

Central Plains." He also took part in a regional conference of National Park Service officials at which various phases of the River Basins program were discussed and plans for the future were formulated. In May he went to Milwaukee, Wis., to attend the annual meeting of the Society for American Archeology and presided over a symposium on "The River Basin Archeological Surveys." Dr. Roberts' report on the River Basin Surveys appears in another section of this report.

Dr. John P. Harrington, ethnologist, was occupied at the beginning of the fiscal year in the preparation of a supplement to his recently completed Aleutian grammar. This supplement contains a long list of terms relating to natural history, weather, material cultures, sociology, religion, and geography. Following this Dr. Harrington completed a grammar of the Maya language consisting of 750 typewritten pages. This study is of particular importance, as Maya is one of the "classic" languages of aboriginal America.

Dr. Harrington then prepared and brought to completion a grammar of the Cahuilla language. The Cahuilla Indians are at present the leading native tribe of southern California. A large report on the Guaraní language of South America was also finished. Guaraní in the Republic of Paraguay has been given equal official and legal standing with Spanish. This is the only instance in which a native Indian language has been given a true literate status. A smaller paper on the Matakó language of the central part of the Gran Chaco of Argentina was next completed. It was found that in many respects this language is surprisingly similar to Guaraní. Another large paper was then prepared, describing and discussing the three principal ideographic writing systems of the world, Egyptian, Chinese, and Maya.

Dr. Henry B. Collins, Jr., ethnologist, spent the period from June 19 to August 16 on Martha's Vineyard, Mass., engaged in an archeological survey of the western end of the island. He found a number of prehistoric Indian village and camp sites, mainly in the Chilmark-Menemsha-Gay Head region, and made collections of artifacts. On returning to Washington he resumed his Eskimo studies.

As chairman of the Board of Governors of the Arctic Institute of North America, Dr. Collins continued to devote considerable time to the affairs of that organization. In the course of the year the Arctic Institute, with increased support from governmental and other sources, expanded its research and other activities. It opened a New York office at the American Geographical Society headquarters, established an open membership, and began publication of a journal. It sponsored and administered a number of field studies in anthropology, botany, zoology, geology, and geography. These projects carried out

in Alaska and northern Canada were financed in large part by the office of Naval Research and the Canadian Government.

Dr. Collins continued to serve as chairman of the Directing Committee for the Arctic Institute's Bibliography and Roster projects. This committee selected personnel and put into operation these two projects—the preparation of a comprehensive annotated and indexed bibliography on the Arctic, and a roster of Arctic specialists. The projects are supported by funds from the Office of Naval Research, the Army, and the Defense Research Board of Canada. The bibliography project, with four expert bibliographers and three assistants, is under way at the Library of Congress; the roster project, with a director and assistant, has been given office space in the building of the Carnegie Institution of Washington.

At the invitation of the Canadian Government, Dr. Collins left Washington late in June to conduct archeological work for the Smithsonian Institution and the National Museum of Canada in the northern part of the Canadian Arctic Archipelago.

At the beginning of the year Dr. William N. Fenton was on leave while teaching in the summer session of Northwestern University (June 23 to August 23), where he was invited to occupy the post of professor in the department of anthropology during that quarter. While in the Chicago area, he was able to spend considerable time examining rare books and manuscripts in the Ayer Collection of the Newberry Library and to study ethnological collections from the Iroquois Indians in the Milwaukee Public Museum and in the Chicago Natural History Museum. Returning, Dr. Fenton spent the first 2 weeks of September at field work among the Seneca Indians of Allegany Reservation in western New York.

Teaching a course in primitive political institutions suggested a plan for undertaking a comprehensive political history of the League of the Iroquois which would attempt to test the findings of ethnology in the historian's traditional materials. The documentary materials on the Six Nations comprising the Iroquois League for the Federal Period alone and for the succeeding first decade of the nineteenth century exist in several large collections of papers which have not been used extensively by historians of Federal and Indian political relations. First, the papers of Samuel Kirkland (1741–1808) contain interesting sidelights on the political activities of the Six Nations, covering missionary activities among the Oneida, Tuscarora, and Seneca tribes; the correspondence of an agent of the American Revolution; and the gradual civilization of the native Indians. Examination of the Kirkland papers at Hamilton College was begun in September with the help of M. H. Deardorff of Warren, Pa., and Charles E. Congdon, an alumnus. The project is indebted to Dr. Arthur C. Parker of Naples, N. Y., for the loan of a Seneca Census of

1840 and several minute books of the Six Nations Council at Buffalo Creek by the New England missionary Rev. Asher Wright; these have subsequently been acquired by the American Philosophical Society.

Two grants were received for Iroquois research. Toward the collection of materials for a political history of the Iroquois the American Philosophical Society made a grant for travel, photoduplication, and secretarial assistance; and a similar grant was received from the Viking Fund, Inc., for field work.

Beginning in February, Dr. Fenton spent about 1 week of each month in travel to repositories of historical materials. He visited Salem and Boston to examine the Timothy Pickering papers, working in the Essex Institute and the Peabody Museum of Salem, and the Massachusetts Historical Society and the Houghton Library of Harvard in the Boston area. Frequent short trips were made to the library of the American Philosophical Society, Philadelphia, to examine parallel papers and to identify a Constitution of the Iroquois Confederacy by Seth Newhouse. In April Dr. Fenton went back to Hamilton College for further work on the Kirkland papers, and returning, he stopped at Vassar College library to arrange for copying the Jasper Parrish papers. Kirkland, Pickering, and Parrish were all concerned in negotiating treaties with the Six Nations after the Revolution, and their letters led to the immense collection of mementos relating to western New York which Henry O'Reilly of Rochester had collected in 15 large folio volumes for presentation to the New York Historical Society. By the end of June Dr. Fenton had completed a first examination of the O'Reilly papers and had arranged for micro-filming a substantial part of them. A policy of collecting as much as practicable on microfilm has cut down the cost of travel.

Dr. Fenton completed a term as senior editor of the *Journal of the Washington Academy of Sciences*. In June he was appointed anthropologist member of the Language Panel of the United States National Commission for UNESCO.

A second album of Iroquois records with program notes, edited by Dr. Fenton, entitled "Seneca Songs from Coldspring Longhouse," was published by the Library of Congress.

Dr. Philip Drucker, anthropologist, was detailed to the River Basin Surveys July 1 to October 1, 1947, for work in the Columbia Basin. He returned to Washington on October 1, and during the ensuing months he brought to completion an ethnographic monograph entitled "The Northern and Central Nootkan Tribes," based on field investigations which he had made among the Nootkan-speaking Indians of Vancouver Island, British Columbia, some years before. This report describes in detail mode of life and customs of these Indians during the closing decades of the nineteenth century and is to be followed by a study tracing the cultural changes produced by European contacts

during the maritime fur trade a century earlier. On finishing this report, he completed an archeological monograph, "La Venta, Tabasco: A Study of Olmec Ceramics and Art," which summarizes the principal results of the studies made by the Smithsonian Institution-National Geographic Society expeditions to southern Veracruz and Tabasco, Mexico. In addition, he prepared two short papers for publication—"Preliminary Account of Archeological Reconnaissance on the Chiapas Coast," and one entitled "The Antiquity of the Northwest Coast Totem Pole"—as well as summary reports for the Director, River Basin Surveys, on the results of investigations of 14 reservoir areas in the Columbia Basin and of 10 in California during the preceding field season.

On May 2 Dr. Drucker proceeded to Boston and Salem, Mass., to examine collections of manuscript materials and museum collections from the period of the maritime fur trade on the Northwest Coast, in the archives of the Massachusetts Historical Society and in the Peabody Museum, Salem. Through the courtesy of officials of those institutions, he was given access to the collections and was able to assemble a considerable amount of unpublished data relating to the problem of culture change due to early European influences. On May 9 he returned to Washington.

On May 13 he was again detailed to the River Basin Surveys and left for the Pacific Coast, to resume charge of the River Basin Surveys work there. He was occupied with these duties at the end of the fiscal year.

Dr. Gordon R. Willey was detailed to the River Basin Surveys for the period August 15 to October 1, 1947, for work in Tennessee.

In the month of October Dr. Willey was occupied in writing additional sections of a report, "Ancon and Supe: Formative Period Sites of the Central Peruvian Coast." This paper is being prepared in conjunction with J. M. Corbett and L. M. O'Neale and is to be published under the auspices of Columbia University. In November and December full time was devoted to a long monograph "Archeology of the Florida Gulf Coast." This involved both writing and a museum survey in late November. Collections were examined in Cambridge, Andover, and New York.

On January 1, Dr. Willey accompanied Dr. Stirling to western Panamá for 3½ months of archeological excavations in Herrera Province. Four sites were examined and stratigraphic tests made in the most promising locations of each. May and June, following the return from Panamá, were occupied with writing the "Archeology of the Florida Gulf Coast." This report should be completed early in September 1948.

In addition to regular research duties, Dr. Willey has attended two meetings of the Institute of Andean Research, of which he is a

member, and a meeting of Florida archeologists held early in August at Daytona Beach. He has also served as assistant editor to *American Antiquity*, to the *Handbook of Latin American Studies*, and to the *Journal of American Archaeology*. For all these journals his work has entailed the covering of recent South American archeological literature.

In the Bureau he has acted as consultant during the final editing of the third and fourth volumes of the *Handbook of South American Indians*.

The following articles were prepared by Dr. Willey for publication during the year 1947-48: "Culture Sequence for the Manatee Region of West Florida," *American Antiquity*, vol. 13, No. 3; "The Cultural Context of the Crystal River Negative Painted Style," *American Antiquity*, vol. 13, No. 4; "A Proto-type of the Southern Cult," *American Antiquity*, vol. 13, No. 4.

SPECIAL RESEARCHES

Miss Frances Densmore, collaborator of the Bureau, conducted special research on music among the South American Indians and submitted a manuscript entitled "Musical Customs of the Southern Hunter Indians of South America" as compiled from the *Handbook of South American Indians*.

INSTITUTE OF SOCIAL ANTHROPOLOGY

The Institute of Social Anthropology was created in 1943 as an autonomous unit of the Bureau of American Ethnology to carry out cooperative training in anthropological teaching and research with the other American republics. During the past year it was financed by transfers from the Department of State, totaling \$94,882, from the appropriation "Cooperation with the American Republics, 1948." The major activities of the Institute of Social Anthropology during the fiscal year 1948 are as follows:

Washington office.—Dr. George M. Foster continued as director of the Institute of Social Anthropology. He traveled to six South American countries during the period February 14 to April 12, 1948, visiting Institute of Social Anthropology field stations in Popayán, Colombia, Lima, Perú, and São Paulo, Brazil. In addition, courtesy calls were made on anthropologists in Barranquilla and Medellín, Colombia, Quito, Ecuador, Cusco, Perú, La Paz, Bolivia, Rio de Janeiro, Brazil, and Caracas, Venezuela. Dr. Foster also spent 3 weeks in México (November 25–December 15, 1947) reading final proof on Publication No. 6 of the Institute of Social Anthropology.

Brazil.—Drs. Donald Pierson and Kalervo Oberg continued their work in São Paulo in cooperation with the *Escola Livre de Sociologia*

e Política. They gave a number of courses in sociology and anthropology, supplementing other courses given by local professors in the general field of the humanities. Dr. Oberg, accompanied by several advanced students, returned to the Mato Grosso for 3 months, July-September 1947, to complete field work initiated the preceding year among the Terena and Caduveo Indians. Dr. Pierson, assisted by advanced students, continued field work at "A Vila," a *caboclo* community near São Paulo. The proximity of "A Vila" to São Paulo made it possible to utilize week ends and short vacations throughout the year, rather than spending a continuous longer period in the field.

Colombia.—Dr. John H. Rowe continued to represent the Institute of Social Anthropology in Popayán, Colombia, cooperating with the Instituto Etnológico of the Universidad del Cauca. Courses in ethnology, linguistics, and archeology were given to the students enrolled in the Instituto and 2 months of field work was carried out among the nearby Guambiano Indians, August-September 1947. Dr. Rowe also twice visited Bogotá to consult with local anthropologists of the National Ethnological Institute concerning anthropological activities in Colombia. Sr. Gabriel Ospina, formerly a student of Institute of Social Anthropology scientists in México, was named director of the newly established Instituto de Antropología Social of the Escuela Normal Superior. Utilizing field techniques learned while working with Dr. Foster in Tzintzuntzan, México, he began a 4-year anthropological study of the pueblo of Vianí, to train local personnel, and to throw light on the functioning of this aspect of Colombian culture.

México.—Dr. Isabel Kelly and Dr. Stanley Newman continued to represent the Institute of Social Anthropology in its cooperative plan with the Escuela Nacional de Antropología. Because of reduced appropriations as compared to the fiscal year of 1947, it was necessary to terminate studies in cultural geography on August 31, 1947, when Robert C. West left this service. Five courses in ethnology and linguistics were given during the academic year. Dr. Kelly, assisted by four students, returned to Tajín, Veracruz, to continue her study of the Totonac Indians. A photographic exhibit in the Benjamin Franklin Library in May 1947, of Totonac Indian scenes, prepared by Dr. Kelly, received favorable comment from many Mexicans, and was thoroughly described in *El Nacional*, the official Mexican Government newspaper. Dr. Newman, working with other faculty members and students, and working with native informants brought from the field, continued research on the Otomí and Nahuatl languages.

Perú.—Dr. Allan Holmberg continued to represent the Institute of Social Anthropology in Perú in its cooperative work with the Instituto de Estudios Etnológicos. As in the case of México, reduced appropriations made it necessary to reduce the Peruvian staff; the services of

Dr. Webster McBryde were terminated on September 30, 1947. Dr. Holmberg gave three courses in ethnology during the year; two, including a seminar on field methods, in the Instituto de Estudios Etnológicos, and one in the University of San Marcos. Three months, February through April, 1948, were again spent in the Virú Valley, bringing to a close the studies initiated the preceding year by Dr. Holmberg, Dr. Jorge Muelle of the Instituto faculty, and selected students.

Dr. Holmberg was one of three official United States delegates to the Hylean Amazon Project of the UNESCO in Iquitos, Perú, in May 1948.

Publications.—Institute of Social Anthropology Publications Nos. 4, 5, 6, and 7, appeared during the fiscal year. These are listed with the publications of the Bureau of American Ethnology.

RIVER BASIN SURVEYS

The River Basin Surveys, a unit of the Bureau of American Ethnology organized to carry into effect a memorandum of understanding between the Smithsonian Institution and the National Park Service providing for the recovery of such archeological and paleontological data and materials as will be lost through the construction of dams and the creation of reservoirs in many of the river valleys of the United States, continued its investigations throughout the year. The work was carried on in cooperation with the National Park Service and the Bureau of Reclamation, Department of the Interior, and the Corps of Engineers, Department of the Army, and was financed by the transfer of \$73,800 from the National Park Service to the Smithsonian Institution. These funds were provided in part by the National Park Service and in part by the Bureau of Reclamation.

Most of the work in the field was of a reconnaissance or survey nature, with only a limited testing of sites where such was necessary to determine their extent and character. In a few cases, however, actual excavations were undertaken. The activities involved 18 States and 38 reservoir areas. By the end of the year the number of reservoir basins surveyed, since the first parties started in July 1946, totaled 85. Their distribution is: Virginia 1, West Virginia 2, Georgia 2, Tennessee 1, Oklahoma 2, Texas 5, Colorado (outside of the Missouri Basin) 4, California 13, the Missouri Basin (7 States) 50, and the Columbia Basin (4 States) 15. Those where surveys were under way but not completed by June 30 are not included in this summary. In the various areas visited 1,576 sites were noted and recorded and of that number 250 have been recommended for extensive excavation. The excavations completed or in progress on June 30 were: New Mexico 1, Wyoming 1, Nebraska 1, South Dakota 1, North Dakota 1,

Texas 1, and Washington 1. Preliminary appraisals with recommendations for further work, supplemented by some technical reports, have been completed for all the areas surveyed. Limited editions of 61 have been mimeographed for distribution to the cooperating agencies. The others were in varying stages of being processed at the end of the year. These mimeographed pamphlets have not been made available to the general public because they are not complete archeological reports and are intended to be used only for reference purposes by the Surveys staff while the program is going forward. Reports for general distribution will be issued after the archeological and paleontological work in each unit has been completed.

General direction and supervision of the work in Georgia, West Virginia, Tennessee, Oklahoma, Texas, New Mexico, Colorado (outside of the Missouri Basin), and some of the California projects were from the main office in Washington. Direction of the program in the Missouri Basin was from a field headquarters and laboratory at Lincoln, Nebr., while the activities in the Columbia-Snake Basin were under the supervision of a field office located at Eugene, Oreg.

The assistance and whole-hearted cooperation given to River Basin Surveys staff men in the field by representatives of the National Park Service, the Bureau of Reclamation, and the Corps of Engineers contributed in no small degree to the success of much of the work. At some of the projects temporary office space and storage facilities were provided, at others transportation was furnished, and in a few cases labor was made available to help in emergency excavations where material had to be recovered immediately. The National Park Service not only obtained the funds necessary for carrying on the program as a whole, but also served as the liaison between the Smithsonian Institution and the other governmental agencies to the benefit of all concerned.

Washington office.—The main office of the River Basin Surveys was under the direction of Dr. Frank H. H. Roberts, Jr., throughout the fiscal year. Carl F. Miller, archeologist, continued to operate from this office, while Joseph R. Caldwell joined the staff as archeologist on December 14, 1947, by transfer from the United States National Museum, and Ralph S. Solecki was appointed in the same capacity on March 2, 1948.

Mr. Miller spent the months from the beginning of the fiscal year until January in completing a "Comprehensive Report on the Archeological Aspects of the Buggs Island Reservoir, Virginia and North Carolina." He left Washington on January 10, 1948, in company with Mr. Caldwell, for Augusta, Ga., where they conferred with the Resident Engineer of the Clark Hill project on the Savannah River. From Augusta they proceeded to Lincolnton, Ga., where they established headquarters, January 13, and proceeded to make a survey of

the archeological remains of the area to be flooded by the Clark Hill Reservoir. During the course of this work they located 128 sites, 70 of which will be covered by water when the dam is completed. These sites included former village areas, camps, and stone-chipping stations, with a few mounds. Materials collected from the surface suggest the former presence of at least six sequent cultural groupings in the area, including a considerable number which possibly antedate the introduction of pottery making. Most of the sites are small and, as a result of long-continued cultivation and erosion, few have any depth. Three of them have been recommended for excavation. Two of the latter are representatives of the type of culture which has been named Stalling's Island, and the third is the Rembert Mound Group described by William Bartram in 1791 and partially excavated by C. C. Jones in 1878 and Cyrus Thomas in 1894 but never thoroughly studied. These mounds belong in the so-called Lamar period in the Southeastern cultural sequence.

Miller and Caldwell completed their work at Clark Hill on May 31 and returned to Washington. They spent the remainder of the fiscal year writing a preliminary report on the results of the survey and preparing recommendations and estimates for an excavation program in the basin.

Mr. Solecki left Washington on March 8, 1948, for Hinton, W. Va., where he established headquarters and began a survey of the Bluestone Reservoir basin on New River. He completed the preliminary reconnaissance on April 19 and left for Huntington, W. Va., to confer with the District Engineer, Corps of Engineers. En route he stopped at Charleston where, with the aid of Mrs. Roy Bird Cook, State Historian and Archivist, he checked the records and manuscripts in the History and Archives Department of West Virginia for possible information on the Indians and early Colonial settlers in the New River valley. He left Huntington on April 21, for Pittsburgh, Pa., stopping to examine some archeological sites at Moundsville, W. Va. At Pittsburgh he obtained information from the District Engineer, Corps of Engineers, about the proposed West Fork Reservoir in the Monongahela Basin in north-central West Virginia. From Pittsburgh he proceeded to the West Fork Reservoir area and made a preliminary reconnaissance of the area that ultimately will be flooded. This work was completed on May 6, and he returned to the Bluestone area for more intensive investigation of the remains occurring there.

Inasmuch as both of the reservoir projects surveyed by Mr. Solecki are in mountainous regions, most of the traces of Indian and Colonial occupation occur along the river bottoms. A total of 42 archeological sites were found in the Bluestone area. These include mound groups, village remains, rock shelters, one location where there are pictographs, and four Colonial forts. At two of the sites, where potsherds were

found on the surface, Solecki did some test digging. The material thus obtained places the cultural horizon in late pre-Columbian times and indicates certain links between the Ohio Valley and the Great Valley of the Shenandoah. Test excavations were also made in the largest of the rock shelters where both historic and prehistoric objects were found, the latter occurring in the deposits to a depth of 5 feet. Because no previous archeological work has been done in this district the excavation of three of the village sites and the large rock shelter has been recommended. Solecki found 14 small sites, presumably places where transient hunting parties had camped, in the West Fork Basin. None of these are of sufficient size or depth to warrant further study and no additional work was recommended. The West Virginia surveys were completed on May 28 and Solecki returned to Washington where he spent the remainder of the fiscal year preparing reports on the results of his investigations.

Dr. Gordon R. Willey, archeologist on the regular staff of the Bureau of American Ethnology, was detailed to the River Basin Surveys during August and September. On August 14 he went to Nashville, Tenn., where he visited the office of the District Engineer for the purpose of obtaining information about the Center Hill project on the Caney Fork River near Baxter, Tenn. From there he proceeded to Baxter and from August 20 to September 12 carried on a survey of the area to be flooded. He found 39 sites consisting of temple mounds, small earth-rock mounds, villages, and caves showing some signs of occupation. Many of the sites proved to be Middle Mississippian in culture and period; some suggested that they belonged in the pre-Mississippian category, and others may even represent the Archaic. The Middle Mississippian designates the period when the people lived in large sedentary communities, depended primarily on intensive agriculture for their subsistence, built temple or substructure mounds, and made characteristic types of pottery and other artifacts. This generally is believed to have been about A. D. 1300 to 1700. Pre-Mississippian also has been called the Burial Mound period, or Southeastern Woodland culture. At that stage the people lived in smaller communities or scattered households, lived primarily by hunting, fishing, food gathering supplemented by a little agriculture. This was during the centuries from approximately A. D. 800 to 1300. The Archaic refers to small, scattered groups of primitive hunters and food gatherers who are believed to have occupied the area prior to A. D. 700. Excavations were recommended for one of the temple-mound sites and one of the earth-rock burial mounds, with testing in some of the village remains. Unfortunately flooding started before this could be accomplished, and the material obtained from the survey constitutes most of our knowledge of that portion of the Cumberland Basin.

After completing the survey at Center Hill, Dr. Willey proceeded to Knoxville, Tenn., where he discussed archeological problems with members of the Department of Anthropology at the University of Tennessee. From there he returned to Washington and prepared his report. He returned to his regular duties as a member of the Bureau staff on October 1.

Oklahoma.—David J. Wenner, Jr., was appointed field assistant on July 29, 1947, and proceeded to make a survey of the Hulah Reservoir basin on the Caney River in Oklahoma. The area to be inundated by this project is not large and he was able to cover it in a few days' time. He found four sites, all apparently camping places, and because of their meager nature, did not believe them worthy of further investigation. From the Hulah region he proceeded to the Fort Gibson Reservoir project on the Grand (Neosho) River. A rapid survey of that basin located 24 sites consisting of 1 mound group, 1 bluff shelter, and the remains of 22 villages or camps. All but three of the sites will be covered by water. The most important is the mound group known as the Norman site. It originally consisted of six earth mounds and a large surrounding village area. Some work was done in four of the lesser mounds a number of years ago by the University of Oklahoma. One of the two remaining mounds is the largest at the site and is connected to an adjacent low mound by a ramp. Small test excavations have been made in the low mound but the large one is virtually intact. It represents a stage of cultural florescence in the southern United States about which very little is known and may be comparable in scientific wealth to the famous Spiro mounds, located in an adjacent county, destroyed by treasure hunters some 15 years ago. Excavation of the Norman mound probably would provide information essential to dating the Spiro-type culture which presumably was the forerunner of the native Caddo culture of the southern Plains at the beginning of historic times. For this reason thorough investigation of the remaining manifestations at the Norman site was recommended.

Mr. Wenner completed his field investigations on August 15 and proceeded to Norman, Okla., where the University of Oklahoma provided him with facilities for studying the material collected and writing his reports. During the period of the surveys and the preparation of the reports, Dr. Robert E. Bell, of the Department of Anthropology at the University, assisted Mr. Wenner as an advisor and consultant. After completion of the work Mr. Wenner left the Surveys to return to college. He again joined the staff on June 28, 1948, and at the close of the fiscal year was engaged in making a survey of the Tenkiller Ferry Reservoir on the Illinois River in the eastern part of the State. Robert Shalkop and William Mayer-Oakes, student assistants, were aiding in this work.

Texas.—The River Basin Surveys in Texas continued to operate throughout the year from the base and headquarters supplied by the Department of Anthropology at the University of Texas, Austin. Excavations were completed at one project, the survey of another reservoir basin was brought to conclusion, and two others were started and finished.

At the beginning of the year Joe Ben Wheat, archeologist, was engaged in excavations at the Addicks Reservoir. This work was terminated on July 15. Mr. Wheat then proceeded to Austin where he studied the material he had collected and prepared a preliminary report covering both the results of his survey of the Addicks Basin and his excavations in two of the sites located there. He also wrote a paper "Archeological Survey of the Addicks Basin: A Preliminary Report" which was published in volume 18 of the Bulletin of the Texas Archeological and Paleontological Society. He resigned from the Surveys on August 15 in order to return to the university and complete his graduate work.

The excavations at the Addicks Reservoir proved interesting because they revealed a sequence of cultural stages extending from the era before pottery making and agriculture were introduced through succeeding centuries until the beginning of contact with European culture. The period covered is from about A. D. 900 to 1700. Who the people were is not known, but certain postulations may be made. At the time of the first French and Spanish explorations of the region the Akokisa band of the Atakapan occupied the area. Although little is known of the specific culture of this group, it is generally considered to have shared the general Atakapan culture extending into the lower Mississippi Valley. The archeological culture is of the same southeastern pattern, which may point to the Akokisa as being the pre-Columbian inhabitants of the Addicks district.

At the beginning of the fiscal year Robert L. Stephenson, archeologist, was making a reconnaissance of the Whitney Reservoir basin on the Brazos River north of Waco. This work continued until October 1, although August 2-4 he returned to Austin for the purpose of depositing material collected and of conferring with members of the Department of Anthropology at the University of Texas; August 30 to September 1 he visited the Spanish Fort and other sites in the central Red River area; and September 13-14 he went to a number of archeological locations near Waco, but outside the reservoir basin, for the purpose of gathering comparative data. On August 23 he made a 1½-hour flight over the entire Whitney area, successfully locating archeological sites from the air and obtaining a comprehensive understanding of the district as a whole. He returned to Austin on October 1 and spent most of the following 2 months studying the material collected and writing the preliminary report. He also prepared an ar-

ticle, "Archeological Survey of Whitney Basin," which was published in volume 18 of the Bulletin of the Texas Archeological and Paleontological Society.

During the course of his investigations Mr. Stephenson located and recorded 61 sites in the Whitney Basin. These consist of 14 rock shelters and 47 occupational areas in the open. Two fossil localities were also located. He recommended 32 sites for further testing and excavation. Such work should produce important evidence on the cultural complexes of that portion of Texas.

Mr. Stephenson left Austin on November 26 and went to Lincoln, Nebr., where he studied the field and laboratory methods being used by the Missouri Basin Survey group. While at Lincoln he also attended the Fifth Conference for Plains Archeology and presented a paper on the work which he had been doing in Texas. He returned to Austin on December 5 and on the 9th left to begin a survey of the Dam "B" Reservoir basin on the middle Neches River in the eastern part of the State. This work was completed on January 18, 1948, having been interrupted by a trip to the Whitney Reservoir where 3 days were spent in showing Dr. Theodore E. White, paleontologist, the bone deposits located earlier. While on this trip Mr. Stephenson located a large mound and accompanying village remains on the upper Neches River near Palestine, Tex. From Dam "B" he proceeded to the McGee Bend Reservoir on the lower Angelina River. Inclement weather, however, interfered with active work in the field, and most of the time until February 16 was devoted to studying local collections of artifacts, working on field notes, and on the report on the results of the Dam "B" investigations. During this interval he also went to Galveston, Tex., for a 3-day conference at the office of the District Engineer, Corps of Engineers, regarding the dates of beginning and completion of reservoir projects in all parts of Texas. The period from February 16 to April 15, except for 3 days (March 5-7) spent at Nacogdoches studying old records to obtain data on the early history of the area, was devoted to reconnaissance of the McGee Bend basin. When the survey was finished Mr. Stephenson returned to Austin and was occupied until the end of the year in preparing his reports on the Dam "B" and McGee Bend investigations.

In the survey of the Dam "B" area 12 sites were located, but none gave indication of being of sufficient importance to warrant further examination. Comparable material occurs both in the McGee Bend Basin and elsewhere in the region. Unless construction work should reveal subsurface deposits of archeological significance no additional work will be required at this reservoir and none was recommended. At McGee Bend 80 sites were located and recorded. Of this number, 8 are early and contain no pottery, 34 are early pottery sites of the Alto Focus (ca. A. D. 1000 to 1300), 22 are late pottery sites of Bossier,

Belcher, and Frankston Foci (ca. A. D. 1450 to 1600), and 1 is a historic site. At many of these locations there are evidences of occupation through two or more cultural periods and they are important for that reason. Out of the group 31 sites have been recommended for further testing or more extended excavation.

New Mexico.—The only work done thus far in New Mexico consisted of the excavation of portions of two shallow rock-shelters 8 miles southeast of Tucumcari. The manifestations at that location, the Hodges site, were outside of the area directly involved by the Tucumcari project and were in no danger of destruction either by construction work or flooding. They were being dug, however, on week ends and holidays by workmen from the project and by settlers attracted to the district by the development of the irrigation program. In order to salvage as much as possible of what still remained, the excavations were initiated by Herbert W. Dick, temporary field assistant, who was employed by the Surveys for that purpose. Mr. Dick worked at the Hodges site from August 18 to 26. He found that both shelters contained a homogeneous lot of archeological material representing a late pre-Columbian cultural period in that part of the Southwest. On the basis of potsherds, found in association with the stone and bone artifacts, a late fourteenth or early fifteenth century dating is given to the archeological manifestations. After completing the digging Mr. Dick went to Albuquerque, N. Mex., where he processed the specimens and prepared a preliminary report on his findings.

While Mr. Dick was engaged at the Hodges site it was visited by Dr. Sheldon Judson who was completing a geological study of the San Jon, N. Mex., region for the Smithsonian Institution. Dr. Judson found that the lower deposits in the shelters contained interesting and helpful stratigraphy and from the evidence he obtained there was able to add another link in the "alluvial chronology" which he has established for that district, the chronology which promises to contribute much to the understanding of the complex history of the Late Pleistocene and subsequent periods in the Southwest. Because of this the Hodges site enjoys an importance out of all proportion to its antiquity and the archeological information which it produced.

Colorado.—Investigations in certain portions of Colorado are a part of the major program for the Missouri Basin, but there are a number of others which fall outside that drainage area and which are being conducted as separate units of the Surveys as a whole. These are in the Arkansas and Gunnison Basins. Later they will be expanded to the Colorado-Big Thompson projects and other tributaries of the Colorado.

Donald Eastman and Gary L. Yundt were appointed field assistants on June 7 and immediately began surveys at a number of reservoir basins in the Gunnison drainage. Brief preliminary investiga-

tions had been made at a number of these projects by Western State College, Gunnison, students under the direction of Dr. C. T. Hurst of that institution. Working in conjunction with Dr. Hurst and under his general direction, Eastman and Yundt completed the surveys of the Cottonwood, Cebolla, Gateview, and Almont reservoir areas and at the close of the year were engaged in a reconnaissance of the Taylor Lake project. The four basins where investigations were completed contained 16 sites consisting of both rock shelters and open camps. None appeared to be of sufficient importance to warrant recommendation for further study by the River Basin Surveys. However, Dr. Hurst and Western State College volunteered to take over such of the units as indicated the possibility of contributing some knowledge and assume responsibility for the additional work needed to obtain it.

Arnold M. Withers was appointed to the Surveys staff on June 13 as archeologist and on June 21 left Denver accompanied by W. W. Thompson and M. F. Sullivan, student assistants, to begin the reconnaissance of a number of reservoir projects in the mountains west of Pueblo. This work was going ahead at the close of the fiscal year. Mr. Withers and his associates used space made available by the Department of Anthropology of the University of Denver as their base of operations.

Missouri Basin.—The Missouri Basin project continued in full operation throughout the year. On July 1, three archeological surveys and one paleontological reconnaissance were under way and the headquarters and laboratory at Lincoln, Nebr., were actively engaged in processing data and specimens received from the field parties. Most of the activities were of a survey nature, but some digging was done at Birdhead Cave in the Boysen Reservoir, Wyo., at Medicine Creek Reservoir, Nebr., and at several paleontological sites in Wyoming. By the end of the first week in November weather conditions were such that it was necessary to stop explorations for the season and all regular personnel returned to Lincoln. From then until conditions again became favorable in the spring, the time was devoted to the study of materials and data collected and the preparation of reports. Field work was initiated March 29, 1948, when an extensive series of excavations was started at sites soon to be destroyed by construction operations at the Medicine Creek Dam in western Nebraska. This work was in accordance with an agreement with the Bureau of Reclamation whereby the River Basin Surveys provided the technical supervision and the Bureau of Reclamation furnished the necessary labor and equipment. This undertaking was still in progress at the end of the fiscal year. On June 1 one archeological party left Lincoln for the Angostura Reservoir, S. Dak., for further survey and excavation, and on June 3 another left for Heart Butte Reservoir, N. Dak., to begin similar activities. A paleontological party departed on June 1 for the

Boysen Reservoir area, Wyoming, to resume the collecting of fossil material. All three parties were at those respective locations at the end of the year.

The general results of the Surveys' findings in the Plains were outlined in the 64th Annual Report of the Bureau of American Ethnology and, although subsequent work added important details, need not be repeated. Some mention, however, should be made of the excavations carried on in the present year. Birdshhead Cave, located near the base of the Owl Creek Mountains, in the Boysen Reservoir basin, Wyoming, contained several levels of aboriginal debris of occupation separated by layers of decomposed rock and dust. The artifacts recovered, although small in number, show significant differences from level to level. If these specimens can be correlated with those from some of the single-occupation sites in the basin, a task which was being attempted at the close of the year, it may be possible to arrange the latter in a sequential order and thus establish a relative chronology for the area. As a whole the material from upper levels of the cave suggests a late pre-Columbian occupancy by Indians from the Great Basin farther west rather than by people from the Plains. This introduces another set of problems pertaining to the interrelationships between two rather distinct groups over a long period of time. Further work in the area should throw light on the subject.

Excavations at the Medicine Creek Reservoir were carried on from September 5 to November 9, but little more than sampling was undertaken at that time. When the work was resumed in March, large-scale operations became possible through the labor and power machinery contributed by the Bureau of Reclamation. The use of heavy equipment ordinarily is frowned upon by archeologists. Because of the short time available for excavation before the sites were destroyed by construction activities and the lack of funds needed to hire large labor crews, however, it was deemed advisable to use bulldozers and highway-grading machinery to remove the overburden from buried village remains. The results obtained amply demonstrated the practicability and effectiveness of such equipment in uncovering archeological materials with a minimum of breakage, and wherever possible its use probably will be extended to other projects. At Medicine Creek entire sites were stripped of their sod or other cover, making it possible to observe the complete village plan, to study village patterns, and to discover small features not readily determinable by the usual hand-labor methods. From March 29 to June 30 the remains of 25 houses were uncovered, 37 cache pits located beneath their floors were investigated, 13 similar pits outside the houses were examined, and 13 middens were dug. Some 28,000 specimens including utensils made of pottery, tools of bone, stone, and shell, and the remains of various food stuffs such as animal bones, mussel shells and charred

vegetal materials (corn, beans, seeds of sunflower, squash, and wild plum) were found. In a number of cases sections of wood in an excellent state of preservation were obtained from post holes in the house floors. These specimens are of value for determining the type of vegetation in the area hundred of years ago and possibly may furnish information for dating purposes.

Most of the remains in this district belong to the Upper Republican culture, so named because the first of the type studied and defined were located in the Republican River drainage of southern Nebraska. It is not possible at this time to correlate them with any of the known tribes, such as the Dakota, Pawnee, or Comanche, but this may be done later. Remains of this culture are believed to date from ca. A. D. 1200 to 1500. A few of the sites appear to belong to what has been called "Woodland" because of their close relationship to others east of the Missouri. Tentative dating places it in the centuries A. D. 500 to 1200. In addition there are traces of a primitive hunting people who inhabited the area several millennia earlier. There is no doubt that the work at Medicine Creek has added a large and important body of new data on the pre-Columbian inhabitants of western Nebraska and from it an unusually complete picture of life in the area should emerge. It seems evident that several long-held scientific theories regarding those people and their relationship to their environment will need to be revised. The information from Medicine Creek certainly will be one of the most significant contributions yet made to the study of Plains prehistory.

The paleontological work, under T. E. White, while not as important in some ways as the archeological investigations, is making a definite contribution to geology. This is particularly true in the Wind River Basin in Wyoming where data collected by the River Basin Surveys field party has aided in the identification of younger beds than previously had been supposed to be present in the area. Furthermore, no historical summary of paleontology in any of the river basins would be complete without consideration of the fragments of fossil bones and leaves frequently found by archeologists in Indian sites. These objects probably were collected as curiosities, although they occasionally were used as ornaments and sometimes attempts were made to work silicified bones into implements. While not of great significance to paleontology, they are a part of the story, and study of the material is helpful. Thus far 94 reservoir areas in the Missouri Basin have been examined either briefly or in some detail, and specimens have been collected from some 68. In a number of cases this material has helped to clarify understanding of the area and will provide useful data for future reference.

As during the previous year, Dr. Waldo R. Wedel, on detail to the River Basin Surveys from the Division of Archeology, United States

National Museum, was in charge of the program. He prepared general plans and coordinated all phases of the work, making numerous trips of inspection to the areas where surveys and excavations were in progress and supervising the work at Lincoln. He returned to his official station at Washington on October 31, but during the fall and winter months made regular monthly trips to Lincoln to check on the work being done at the field headquarters and laboratory and to assist, through advice and discussion, in the preparation of the reports on the summer's activities. He left Washington on May 26 for Lincoln and on his arrival there resumed active direction of the program for the field season.

J. Joseph Bauxar, archeologist, was at Chamberlain, S. Dak., at the beginning of the fiscal year with the party, under the direction of Paul L. Cooper, which was engaged in making a preliminary reconnaissance of the west side of the Missouri River in the Fort Randall Reservoir area. During the continuance of this work 82 sites were visited, and data on about 20 others were obtained from local people. On July 19 test digging was initiated in some of the more promising sites. The period from July 19 to August 20 was devoted to the examination of burials at the Wheeler Bridge mound site. These occurred in 2 low mounds. At one of these there were 12 bundle burials, and at the other 2, or possibly 3, of the same type. Inasmuch as there were no funerary offerings accompanying any of the burials and the material in the mounds was scarce, there was nothing to indicate possible cultural relationship for these remains. On August 20 Mr. Bauxar shifted his operations to the Pease Creek site where he opened an exploratory trench through a large refuse mound. Two definite occupation levels were noted there, and a large quantity of cultural material was recovered. The specimens suggest affiliation with either Upper Republican or prehistoric Arikara peoples. On September 17 investigations were started at another site which gave indications of a well-defined occupation level. Two trenches were dug at that location. They revealed a well-defined occupation level which extended below the plow zone. This work was completed on October 6, and attention was then turned to the Oldham site where two subsurface circular house floors were uncovered. These presumably belong to a late occupation which apparently was Arikara. Some slight evidence of an earlier Woodland occupation was also noted. A preliminary examination of all the data collected from the various sites investigated indicates a range of cultural types extending back from late historic Yankton through what possibly was early Arikara and even earlier Woodland.

Mr. Bauxar returned to Lincoln on November 6 and from then until April 4 was engaged in working up his material and in establishing an ethnohistory file for the Missouri Basin to be used as a ready

reference by the staff in correlating archeological materials with those of known tribes. The Thwaites and Biddle editions of the Lewis and Clark journals and the Ordway journal were the sources examined for the desired information. A total of approximately 1,500 items pertaining to tribal locations, contacts, material culture, and other features were extracted from these journals. When this material has been prepared for filing under tribal and subject-matter headings, it probably will fill some 15,000 index cards.

From April 4 to June 26 Mr. Bauxar was on special assignment to the National Park Service for the purpose of conducting historical investigations at the Homestead National Monument in Gage County, Nebr. Five limited areas were examined, and a report on the excavations was prepared and submitted to the National Park Service, Region Two Office, at Omaha. Upon the completion of this detail Mr. Bauxar returned to the Lincoln headquarters and resumed his work on the ethnohistory project.

On July 1 Wesley L. Bliss, archeologist, was working with the field party under his direction at the Glendo Reservoir project in Platte County, Wyo. The survey of this area, started in the month of June, was completed on July 2, and having located a total of 43 sites the party moved the following day to Boysen Reservoir, in Fremont County, where further investigations were carried on until July 26. During this period tests were made in Birdshhead Cave in the Owl Creek Mountains about 5 miles west of the dam site. This cave showed six levels of occupation, and prospects for obtaining interesting information about the aboriginal inhabitants of the area were so promising that plans were made to return to it later in the season. On July 27 the party moved to the Oregon Basin project in Park County where it continued reconnaissance work, locating additional sites which increased the total for the basin to 28, and did some test digging in two rock shelters. August 11 it moved to the Canyon Ferry Reservoir near Helena, Mont. Investigations there added to the number of sites located during the preliminary examination of the area in 1946, making a total of 31. The work there was completed on August 26, and attention was turned to the proposed Tiber Reservoir near Shelby, Mont., where work continued until September 9. During this period Mr. Bliss and his party spent 4 days traveling by boat in order to locate and examine sites exposed along the river-cut terraces. These sites could not be reached by land and were not visited during the preliminary reconnaissance made the previous year. Additional sites located bring the total for Tiber to 53. Leaving this area, Mr. Bliss returned to the Boysen Reservoir and from September 11 to November 6 completed excavation of the Birdshhead Cave and did some test digging in other sites. He returned to Lincoln on November 8 and from then until the end of the fiscal year was engaged

in laboratory work and the preparation of supplementary reports on the Glendo, Boysen, and Canyon Ferry projects. He also wrote a "Summary Report on the Archeology of the Wyoming-Montana River Basin Surveys of 1947—with Comments on Smokey Hill and Republican River Sub-basins in Kansas and Nebraska." Mr. Bliss presented two papers at the Fifth Conference for Plains Archeology in November. One of these summarized the results of the archeological surveys in Wyoming and Montana and the other discussed the subject of Early Man in the northwest Plains. Mr. Bliss also attended the joint meeting of the American Anthropological Association and the Society for American Archeology at Albuquerque, N. Mex., in December, and presented a paper dealing with archeological problems in the western Plains.

As previously stated, Paul L. Cooper was in charge of a survey party which at the beginning of the fiscal year was operating in the Fort Randall Reservoir area in South Dakota. On July 12 and 13 Mr. Cooper attended a field conference of workers in upper Missouri River archeology at Bismarck, N. Dak., and from there he accompanied Dr. Waldo R. Wedel, field director of the River Basin Surveys, and Dr. Jesse D. Jennings, National Park Service archeologist, on an inspection trip to a site which was being excavated by the University of North Dakota near Fort Yates, N. Dak. From there he returned to Lincoln and until August 4 worked on a preliminary report on the archeological resources of the Fort Randall Reservoir. On August 6, after conferring for 2 days with personnel of the Corps of Engineers in Omaha and with the Director of the University of South Dakota Museum at Vermillion, Mr. Cooper returned to the Fort Randall field unit which had been under the direction of Mr. Bauxar during his absence. From then until October 28 he remained with the field party and participated in the investigations already discussed in connection with Mr. Bauxar's activities. He then returned to Lincoln to take charge of the field headquarters upon the departure of Dr. Wedel for Washington.

Mr. Cooper continued this supervision, which was both technical and administrative, throughout the fall and winter months during the periods when Dr. Wedel was in Washington. He made several trips to Omaha and Denver for the purpose of consulting with officials of the National Park Service, the Corps of Engineers, and the Bureau of Reclamation. As time permitted, the data collected during the field season were summarized preparatory to the writing of technical reports, and preliminary reports were prepared on certain phases of the field work. He also participated in the Fifth Conference for Plains Archeology, presenting a paper summarizing the field work and discussing pottery types found in certain districts in the Plains area. In May Mr. Cooper represented the Missouri Basin project of the River

Basin Surveys at the annual session of the Nebraska Academy of Sciences and read a paper explaining and summarizing the activities of the Surveys. On June 3 Mr. Cooper left Lincoln for North Dakota. Two days were spent en route in conferring with personnel at the University of South Dakota Museum. Arriving at the Heart Butte Reservoir project on the Park River in North Dakota, Mr. Cooper initiated reconnaissance work and started some test excavations in a site not far above the location for the dam. These investigations were in progress at the close of the fiscal year.

Robert B. Cumming, Jr., archeologist, continued to serve as the laboratory supervisor at the Lincoln headquarters. He planned and directed the procedures for processing specimens, photographic negatives and prints, the preparation of maps and diagrams for the reports, the typing of manuscripts and cutting of stencils, and the general maintenance of equipment. During the course of the year 37,406 specimens were cleaned, repaired if necessary, numbered, cataloged, and stored. Since the beginning of the project 59,306 specimens have been processed. Over 830 photographic negatives and their prints were added to the files, bringing the total to 1,256. Approximately 100 kodachrome positives were cataloged, making 179 now available for use in illustrating talks about the program. During the year Mr. Cumming established a file for photographic enlargements suitable for publicity purposes and one for lantern slides. Reference maps and aerial photographs were indexed and filed, 835 of the former and 277 of the latter now being available for use by the staff. In addition Mr. Cumming assisted in and supervised the mimeographing and assembling of reports issued during the year. These consisted of 10 preliminary archeological reports, 5 supplementary archeological reports, and 2 paleontological reports. He also carried on the project inventory and requisitioning of supplies throughout the year. During such times as the field director and acting director were away from Lincoln he was in charge of the field office.

From July 1 to November 7, Jack T. Hughes, archeologist, assisted Wesley L. Bliss in Wyoming and Montana, where he participated in reconnaissance and survey of several reservoir basins. From November 8 to May 30 he worked in the office at Lincoln where he aided in the preparation of various reports on the field work of the 1947 season. He wrote two reports entitled "Supplementary Appraisal of the Archeological Resources of Oregon Basin Reservoir, Park County, Wyoming" and "Supplementary Appraisal of the Archeological Resources of Tiber Reservoir, Toole and Liberty Counties, Montana." He also prepared the following section of a report entitled "Archeology of Birdhead Cave, Fremont County, Wyoming": Introduction, site, locale, occupation, and complexes, as well as parts of those on remains

and conclusions. During this period Mr. Hughes also devoted some of his time to an analysis of the archeological materials in the collection of the Nebraska State Historical Society from the Barn Butte site on the North Platte River in Garden County, Nebr., in the preparation of a report on this site; the preparation of a table showing proposed correlations of geological, climatological, and archeological events at several selected sites in the western United States; and in the preparation of a report on stonework terminology for the Nomenclature Committee of the Conference for Plains Archeology.

Mr. Hughes left Lincoln on June 1 for the Angostura Reservoir in South Dakota where, with J. M. Shippee, field assistant, he began a reconnaissance and intensive survey of the area to be flooded. This work was in progress at the close of the year.

At the start of the fiscal year, Marvin F. Kivett, archeologist, was in charge of a party engaged in an archeological reconnaissance of the proposed Garrison Reservoir in northwest North Dakota. This reconnaissance included surface survey and limited test excavations in a number of the more important of the 70-odd known sites located in and adjacent to the reservoir. These sites include permanent earth-lodge villages, buried occupational zones, burial locations, and numerous tipi-ring groups. The reconnaissance was terminated at Garrison on August 20, and the party transferred its attention to the Baldhill Reservoir on the Sheyenne River, where a brief reconnaissance was carried on from August 22 to August 28. This resulted in the location of 10 archeological sites, 7 of which were occupational areas and 3 were mound groups. All the occupational sites yielded some pottery, while one mound tested yielded four disarticulated burials. The party returned to the River Basin Surveys Laboratory in Lincoln on August 29.

On September 5 Mr. Kivett went to the Medicine Creek Reservoir, Frontier County, Nebr., to do some test digging at several previously located sites. Four pit-house floors, located in two village sites attributable to a variant of the Upper Republican complex, were excavated, and an occupational area located on a low terrace near the mouth of Lime Creek was tested by means of trenches. The latter site presumably is a variant of the Woodland pattern. This work was terminated on November 9 because of inclement weather, and Mr. Kivett returned to Lincoln.

During the period November 10 to March 27 Mr. Kivett prepared preliminary archeological reports for the Baldhill and Garrison Reservoirs in North Dakota, and the proposed Davis Creek Reservoir in Nebraska. He also worked on a technical paper dealing with a shell-bead ossuary excavated during the fall of 1946 on Prairie Dog Creek, Phillips County, Kans., near the upper limits of the Harlan County Reservoir.

On March 28 Mr. Kivett returned to the Medicine Creek Reservoir to begin an extensive excavation program. During the period March 29 to June 30, three village sites on or near the dam axis were excavated, and digging was started at the remains of a fourth village a short distance above the dam in the reservoir basin. This work included the uncovering of 25 house floors, the recovery of 2 burials, and extensive excavations in midden areas associated with the house floors. Power machinery, furnished by the Bureau of Reclamation, was used primarily for removing the sterile overburden covering most of the area, for the removal of refuse dirt, and for digging exploratory test trenches. The bulk of the materials recovered appear to be attributable to the Upper Republican aspect. At the close of the fiscal year the work was continuing, with attention being directed toward a series of small sites on the right bank of the reservoir basin approximately 1 mile above the dam axis.

George Metcalf was appointed field assistant on September 25 and proceeded immediately to the Medicine Creek Reservoir where he joined Marvin F. Kivett in the excavation being conducted there. He returned to Lincoln on November 9 and from then until March 28, when he again went to Medicine Creek, he devoted his time to classifying, studying, and writing a technical paper on the specimens collected during the field work. This report included not only the material obtained by the River Basin Surveys party, but also that secured by a group from the Nebraska State Historical Society which had excavated several house sites in the area during the summer. Mr. Metcalf's manuscript will be incorporated into the major report on the Medicine Creek investigations. On June 30 he was in charge of a portion of the work at Medicine Creek.

J. M. Shippee, field assistant, was with the Bliss party from July 1 to November 8. After his return to Lincoln he devoted the time in the laboratory to work on the specimens from Birdshhead Cave, the sorting and classifying of artifacts from other localities, and the preparation of maps. He left Lincoln on June 1 with the Hughes party and was participating in the surveys at Angostura Reservoir at the end of the year.

Dr. Theodore E. White, paleontologist, was occupied in paleontological reconnaissance from July 1 to September 19. In the course of this work he visited 7 reservoir areas in Nebraska, 23 in Wyoming, and 25 in Montana. This phase of his investigations was interrupted from August 21 to September 11 while he dug the skull and several vertebrae of a dinosaur from the Jurassic Morrison beds in the Middle Fork Reservoir area in northeastern Wyoming. Dr. White returned to the Lincoln office on September 20 and spent the time until October 8 preparing preliminary reports on the reservoir projects examined during the summer. He then left for the Rocky Ford and Philip

Reservoir areas in South Dakota and from there proceeded to the Boysen Reservoir in Wyoming where he initiated a survey of the area to be inundated by that project. While in the Boysen Basin he collected a number of specimens of fossil mammals and a large soft-shelled turtle. He returned to Lincoln November 7 and from then until January 6 devoted his time to writing reports and consulting geological literature for information bearing on the reservoir areas.

Leaving Lincoln, Dr. White went to Texas where, from January 9 to 29, he made a paleontological reconnaissance of the Whitney Reservoir basin on the upper Brazos River. From there he returned to Washington, D. C., and from February 2 to May 15 worked in the United States National Museum identifying osteological material obtained from archeological sites, examining specimens, consulting geological literature relative to the reservoir areas in the Missouri Basin and Texas, and preparing reports. He then went to the Lincoln office and devoted the period from May 18 to June 1 making preparations for the summer's field activities. He left Lincoln on June 1 for the Boysen Reservoir where he resumed the investigations interrupted by the onset of bad weather the previous autumn. From June 4 to June 30 he collected a number of specimens of fossil mammals and reptiles and made extensive notes on the structure and stratigraphy of the area.

A number of student assistants were employed during the year as members of the various field parties. Robert L. Hall and Warren Wittry were with the Cooper party in South Dakota from July 1 to September 10, when they returned to college. Both men again joined Mr. Cooper on June 22 and were working with him at the Heart Butte Reservoir at the end of the fiscal year. Gordon F. McKenzie, John L. Essex, and Leo L. Stewart were with Marvin F. Kivett at the Garrison and Baldhill Reservoir projects in North Dakota at the beginning of the fiscal year. Mr. Stewart left the party on August 20, and Mr. Essex and Mr. McKenzie terminated their employment on August 30 following the return to the Lincoln headquarters. H. G. Pierce was with the Bliss party in Wyoming and Montana from July 1 to September 10. John C. Donohoe assisted Dr. Theodore E. White from July 1 to September and again joined him on June 14 for work in the Boysen Reservoir. Ernest Lundelius joined the staff on June 1 and left Lincoln with Dr. White when he started for Wyoming. Both he and Mr. Donohoe were with the White party at the close of the year.

Pacific Coast area.—During the fiscal year the River Basin Surveys project in the Pacific Coast region carried out investigations of the archeological and paleontological resources in 14 reservoir areas in the Columbia Basin, and in 7 reservoir areas in central California. The results of this work were described in reports prepared for mimeographing and limited distribution. A total of 180 sites were found

in the Columbia Basin reservoirs, including sites of major and minor importance, and a total of 80 in those in California.

Dr. Philip Drucker, detailed from the regular staff of the Bureau to serve as field director, was in charge of activities in this area. During the period from July 1 to September 30 he made field headquarters at Eugene, Oreg., utilizing office space made available to the Surveys by the Department of Anthropology of the University of Oregon. He divided his time about equally between the Eugene office, where he planned the survey work and carried out the routine necessary for its operation, and the field, where he at times accompanied the survey parties, and checked on the results of their investigations. At the end of September he departed for Washington, D. C., having closed the field headquarters for the winter. In Washington he prepared the reports previously mentioned on the basis of the data collected by the field parties, in addition to his activities as a member of the staff of the Bureau of American Ethnology.

On May 13 he left Washington for the Pacific Coast, stopping en route at Milwaukee, Wis., for the purpose of conferring with the Committee for the Recovery of Archeological Remains which met in that city on the 14th and of participating in a symposium on the River Basin Surveys program. He arrived at Portland, Oreg., where he conferred with the officials of the Columbia Basin Recreational Survey Office concerning the status of various reservation projects of the Bureau of Reclamation and the Corps of Engineers in the Columbia Basin. On May 18 he arrived in Eugene, Oreg., where he completed arrangements for office and laboratory space at the Department of Anthropology of the University of Oregon. From May 20 to 28 he conferred with officials of the Region Four Office of the National Park Service at San Francisco on plans for the field season, and also with representatives of the departments of anthropology at the University of California, Berkeley, University of California at Los Angeles, and the University of Washington. As the result of these conferences, arrangements were made for two cooperative programs of research. The Department of Anthropology of the University of Washington arranged to put a party in the field under the direction of a member of the River Basin Surveys staff, to make an intensive survey and preliminary testing of the Potholes (O'Sullivan) Reservoir area in eastern Washington. The corresponding department at the University of California arranged to undertake investigations during the latter part of the summer in reservoirs in the upper San Joaquin drainage that had previously been examined by the survey.

During the month of June Dr. Drucker was occupied with planning the itineraries of survey field parties and obtaining the necessary personnel and equipment for them. On June 28 the parties were assembled, given the necessary instructions, and sent into the field. At

the close of the fiscal year Dr. Drucker was at the field headquarters in Eugene.

Franklin Fenega and Clarence E. Smith, archeologists, had just commenced their field work at the beginning of the fiscal year. During the month of July they investigated three reservoir areas in the Willamette River drainage, the Detroit, Dorena, and Meridian, in Oregon. From there they proceeded to the site of the McNary Reservoir on the Columbia River just upstream from Umatilla, Oreg., and Plymouth, Wash., where they continued investigations for the remainder of the summer. All these reservoirs are Corps of Engineers projects. McNary Reservoir they found to be extremely rich in archeological remains, and after the preliminary reconnaissance survey had been completed on August 20, they carried out an intensive survey to establish which of the many sites found would most fruitfully reward excavation. On the basis of their intensive survey it was possible to make recommendations for the excavation of five groups of sites. On completion of the field work they summarized their field data, and submitted a preliminary report. Mr. Fenega resigned from the River Basin Surveys on September 22 in order to return to his academic work at the University of California. Mr. Smith was transferred to temporary headquarters at Berkeley, Calif., on the 22d, and carried out surveys at the following reservoirs in California: Dry Creek, Monticello, Kelsey Creek, Indian Valley, Sly Park, and Wilson Valley. On December 17 he resigned from the Surveys to resume academic work at the University of California.

Richard D. Daugherty, archeologist, and Francis A. Riddell, field assistant, were also just starting field work at the beginning of the fiscal year. During the remainder of the field season they examined the following reservoir areas: Cascade, Smith's Ferry, Scrivers Creek, Garden Valley in Idaho; Equalizing, Long Lake, and Potholes (O'Sullivan) in Washington; Anderson Ranch and Palisades in Idaho; and Hungry Horse in Montana; all projects of the Bureau of Reclamation. The greatest wealth of archeological remains they found to occur in the Bureau of Reclamation's Columbia Basin project, comprising Equalizing, Long Lake, and Potholes (O'Sullivan) Reservoirs. Both men resigned from the River Basin Surveys staff on September 24, having completed the preliminary reports on their field investigations for the season. On June 15, Mr. Daugherty was reappointed to the River Basin Surveys staff and was put in charge of the cooperative project arranged with the Department of Anthropology of the University of Washington. On June 19 he departed for the field with his crew and established a field camp in the Moses Lake area. At the end of the fiscal year he was still in the field in that location, Mr. Riddell was reappointed to the River Basin Surveys staff as field assistant on July 28 and departed with other members of the survey

crew to begin an investigation at Benham Falls Reservoir in eastern Oregon.

George L. Coale, archeologist, Harry S. Riddell, Jr., field assistant, and Douglas Osborne, field assistant, joined the staff of River Basin Surveys on June 28 and proceeded to Benham Falls Reservoir to begin the season's survey work there.

Albert D. Mohr and William S. King, who had assisted Clarence E. Smith during October and November, were employed by the River Basin Surveys temporarily as field assistants during the period May 16-21 to carry out an investigation of the Mariposa Reservoir basin on Mariposa Creek on the east side of the San Joaquin Valley in central California. Only three small sites were located and none were recommended for further investigation.

Cooperating institutions.—State and local institutions have contributed to the River Basin Surveys program in various ways. In addition to furnishing space for field offices and laboratories as at the University of Nebraska, the University of Texas, the University of Denver, Western State College, the University of California, and the University of Oregon, universities and local institutions in some cases have joined forces with the Surveys for cooperative projects and in others have taken over units in the survey program. As previously mentioned, the excavation project at the O'Sullivan Reservoir in Washington was a cooperative undertaking between the University of Washington and the River Basin Surveys. This also was true for the surveys in western Colorado where members of the Surveys staff worked with field parties from Western State College at Gunnison.

During the year the University of Kentucky made surveys at the Wolf Creek Reservoir on the Cumberland River, and at the Dewey Reservoir on Johns Creek in the Big Sandy River drainage. In addition, the University conducted excavations at the Wolf Creek Reservoir and furnished the River Basin Surveys with a detailed report on its activities. The University of Georgia established surveys in the Chattahoochee and Flint River basins and did some excavation work in areas which will be inundated. The Alabama Museum of Natural History did reconnaissance work and some digging. The Florida Park Service took over the survey of the area in Florida which will be flooded by the construction of the Woodruff Dam on the Apalachicola River near Chattahoochee. The University of Tennessee made a survey of the Stewarts Ferry Reservoir basin on Stones River and did preliminary reconnaissance at the Harpeth River project. It also made arrangements for some salvage work at the Center Hill Reservoir where the impounding of water began too soon for the River Basin Surveys to do more than make a reconnaissance and recommend the excavation of certain sites. The University of Missouri, in cooperation with the Missouri Archeological Society, made surveys

in the Bull Shoals, Clearwater, Pomme de Terre, Joanna, Table Rock, and Waco Reservoirs, and carried on excavations in key sites at Bull Shoals and Clearwater. The University of Oklahoma did some excavation work in a village site which will be flooded by the Fort Gibson Reservoir on the Grand (Neosho) River. The University of Kansas did survey work and started excavations at a village site in the Kanapolis River basin on the Smoky Hill River in Kansas. In Nebraska the State Historical Society carried on excavations at archeological sites in the Medicine Creek Reservoir area outside the Federally acquired lands adding important supplemental information on remains beyond the localities being worked by the River Basin Surveys. The Laboratory of Anthropology of the University of Nebraska excavated in two important sites in the Harlan County Reservoir area on the Republican River in the southern part of the State. The University of Nebraska State Museum carried on paleontological work near the Medicine Creek Dam site and on Lime Creek, a tributary of Medicine Creek, where important information was obtained on some of the earliest cultural remains thus far found in North America. The Museum also collected paleontological material from the Harlan County Reservoir. The University of North Dakota, in cooperation with the North Dakota Historical Society, carried on excavations at the Heart Butte Reservoir, on the Heart River, in the summer of 1947, and at the Baldhill Reservoir on the Sheyenne River beginning June 21, 1948. The University of Colorado made a preliminary reconnaissance of the 8 reservoir areas comprising the Colorado-Big Thompson project, while the University of Denver made brief surveys of 12 reservoir basins comprising the Blue-South Platte project. Western State College of Colorado did preliminary work in nine reservoir basins of the Gunnison-Arkansas project. The Museum of Northern Arizona, at Flagstaff, assumed responsibility for surveys at the Alamo project on Williams River in the western part of the State, but had not started investigations at the end of the year. The Archeological Surveys Association of Southern California, sponsored by a number of museums in that area, completed surveys in eight proposed reservoir and flood-control projects in that portion of the State. The University of California, at Berkeley, took over responsibility for the excavation of key sites located by the River Basin Surveys in the Pine Flat Reservoir on King's River and in the Isabella Reservoir on Kern River. Actual operations had not yet gotten under way, however, by June 30.

Progress reports and completed reports prepared by the cooperating organizations are sent to the River Basin Surveys so that the results of their investigations may be coordinated with the over-all

program. All the information obtained by these groups thus becomes a part of the general record of the River Basin Surveys.

EDITORIAL WORK AND PUBLICATIONS

There were issued 1 Annual Report, 2 Bulletin volumes (Handbook of South American Indians), and 4 Publications of the Institute of Social Anthropology as listed below:

Sixty-fourth Annual Report of the Bureau of American Ethnology, 1946-1947, 30 pp.

Bulletin 143. Handbook of South American Indians. Julian H. Steward, editor. Volume 3, The Tropical Forest tribes. 986 pp., 126 pls., 134 figs., 8 maps. Volume 4, The Circum-Caribbean tribes, 609 pp., 98 pls., 79 figs., 11 maps.

Institute of Social Anthropology Publ. No. 4. Cultural and historical geography of Southwest Guatemala, by Felix Webster McBryde. 184 pp., 48 pls., 2 figs., 25 maps.

Institute of Social Anthropology Publ. No. 5. Highland communities of Central Peru: A regional survey, by Harry Tschopik, Jr. 56 pp., 16 pls., 2 maps.

Institute of Social Anthropology Publ. No. 6. Empire's children: The people of Tzintzuntzan, by George M. Foster. 297 pp., 16 pls., 36 figs., 2 maps.

Institute of Social Anthropology Publ. No. 7. Cultural geography of the modern Tarascan area, by Robert C. West. 77 pp., 14 pls., 6 figs., 21 maps.

The following publications were in press at the close of the fiscal year:

Bulletin 143. Handbook of South American Indians. Julian H. Steward, editor. Volume 5, The comparative ethnology of South American Indians. Volume 6, Physical anthropology, linguistics, and cultural geography of South American Indians.

Institute of Social Anthropology Publ. No. 8. Sierra Popoluca speech, by Mary L. Foster and George M. Foster.

Institute of Social Anthropology Publ. No. 9. The Terena and the Caduveo of Southern Mato Grosso, Brazil, by Kalervo Oberg.

Institute of Social Anthropology Publ. No. 10. Nomads of the Long Bow: The Siriono of Eastern Bolivia, by Allan R. Holmberg.

Publications distributed totaled 25,037 as compared with 8,205 for the fiscal year 1947.

LIBRARY

Accessions in the library of the Bureau totaled 145 volumes, bringing the total accession record as of June 30, 1948, to 34,607.

ILLUSTRATIONS

Work on the restoration of Indian photographs consumed the greater part of the year. The rest of the time was spent on work for the editors and on the preparation of maps and illustrations for Bureau publications.

ARCHIVES

Ever-increasing use is being made of the manuscript and photographic collections of the Bureau. Cards for the manuscript catalog, compiled for publication, have been typed and assembled. Upon completion of this project, a similar catalog of the photographic negatives in the Bureau collection, was begun. Approximately 2,600 cards for this catalog were typed by the end of the fiscal year.

The Bureau also put into operation its new filing system of photographic prints, the first installment of 30 albums having been acquired for prints from newly restored negatives. Each print is labeled with information pertinent to the subject. Full biographical data is furnished where possible in the case of portraits, so that the information is easily accessible to inquirers. At the close of the fiscal year, approximately 200 new file prints have been thus filed. Prints for the duplicate reserve file also have been labeled and filed with protecting paper between the prints. Requests for pay orders exceeded 300 prints during the year.

Up to July 1, 1948, 200 restorations of old negatives were completed. This necessitated the making of 200 11- by 14-inch enlargements, 200 mountings, 200 8- by 10-inch negatives, and 600 8- by 10-inch file prints. In addition to the restoration program, the Bureau photographer filled requisitions for 53 negatives, 988 prints, and 807 enlargements.

COLLECTIONS

Collections transferred by the Bureau of American Ethnology to the United States National Museum during the fiscal year were as follows:

<i>Accession No.</i>	<i>Collection</i>
177,085.	1 skeleton of an Indian child, 2-3 years old, from near Lela, Wheeler County, Tex.
177,393.	1 skull and 4 cervical vertebrae of a dinosaur. Collected by Dr. Theodore E. White 12½ miles west of Kaycee, Johnson County, Wyo.
178,819.	Archeological material collected at Cerro de las Mesas, Veracruz, México, 1941, by the National Geographic Society-Smithsonian Institution Expedition under the direction of Dr. M. W. Stirling.
178,831.	3 Miocene specimens from the Canyon Ferry Reservoir area in Montana; and 6 Eocene specimens from the Boysen Reservoir area in Wyoming. Collected by Dr. T. E. White and John C. Donohoe.
178,942.	538 specimens of archeological material collected by Dr. Gordon R. Willey from the Center Hill Reservoir on Caney Fork River, DeKalb County, Tenn.
179,088.	2 mollusks from Medicine Creek, Nebr.

MISCELLANEOUS

During the year Dr. Antonio J. Waring of Savannah, Ga., was made a collaborator of the Bureau of American Ethnology, while Miss Frances Densmore and Dr. John R. Swanton continued as collaborators.

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the American Indians, both past and present, of both continents. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Respectfully submitted.

M. W. STIRLING, *Director.*

Dr. A. WETMORE,

Secretary, Smithsonian Institution.







Sixty-sixth Annual Report
of the
**BUREAU OF AMERICAN
ETHNOLOGY**

1948-1949

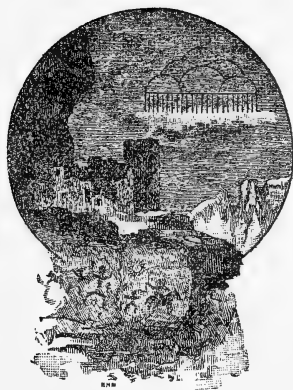


SMITHSONIAN INSTITUTION
WASHINGTON
D. C.

SIXTY-SIXTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1948-1949



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1950

BUREAU OF AMERICAN ETHNOLOGY

Director.—MATTHEW W. STIRLING.

Associate Director.—FRANK H. H. ROBERTS, Jr.

Senior ethnologists.—H. B. COLLINS, Jr., JOHN P. HARRINGTON, W. N. FENTON.

Senior anthropologists.—G. R. WILLEY, P. DRUCKER (on military leave).

Collaborators.—FRANCES S. DENSMORE, JOHN R. SWANTON, A. J. WARING, Jr.

Editor.—M. HELEN PALMER.

Librarian.—MIRIAM B. KETCHUM.

Illustrator.—EDWIN G. CASSEDY.

INSTITUTE OF SOCIAL ANTHROPOLOGY

Director.—G. M. FOSTER, Jr.

Anthropologists.—*Brazilian office:* DONALD PIERSON, KALEEVO OBERG; *Colombian Office:* RAYMOND E. CRIST; *Mexican office:* ISABEL T. KELLY; *Peruvian office:* GEORGE KUBLER.

RIVER BASIN SURVEYS

Director.—FRANK H. H. ROBERTS, Jr.

Archeologists.—J. JOSEPH BAUXAR, WESLEY L. BLISS, JOSEPH R. CALDWELL, GEORGE L. COALE, PAUL L. COOPER, ROBERT B. CUMMING, Jr., RICHARD D. DAUGHERTY, MARVIN F. KIVETT, CARL F. MILLER, HOMER DOUGLAS OSBORNE, RALPH S. SOLECKI, ROBERT L. STEPHENSON, ARNOLD M. WITHERS, RICHARD PAGE WHEELER.

Paleontologist.—THEODORE E. WHITE.

SIXTY-SIXTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, *Director*

SIR: I have the honor to submit the following Report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1949, conducted in accordance with the Act of Congress of June 27, 1944, which provides " * * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *"

SYSTEMATIC RESEARCHES

At the end of December Dr. M. W. Stirling, Director of the Bureau, left to continue the cooperative program of archeological work in Panamá of the National Geographic Society and the Smithsonian Institution. Excavations were conducted at Utivé in the province of Panamá, at Barriles and Palo Santo in the province of Chiriquí, and at three sites midway between Santiago and Soná in the province of Veraguas. At Utivé and Barriles heretofore undescribed ceramic cultures were encountered, while at the other sites much new information was obtained on the classic Chiriquí and Veraguas cultures. The expedition received splendid cooperation from Maj. Gen. Willis Hale, commanding general of the air forces of the Caribbean area, who, in addition to other assistance, allowed the use of two helicopters for reconnaissance work in the Utivé-Chepo area. Dr. Stirling returned to Washington with the Panamanian collections in the middle of May.

Dr. Frank H. H. Roberts, Jr., Associate Director of the Bureau and Director of the River Basin Surveys, devoted the greater part of his time during the fiscal year to the direction and administration of the River Basin Surveys. On November 4 and 5, Dr. Roberts attended the meetings of the American Philosophical Society at Philadelphia where he presented a paper on the River Basin Surveys program. From November 22 to 30, Dr. Roberts was at Lincoln, Nebr., inspecting the field headquarters for the Missouri Basin project. While at Lincoln he also took part in the Sixth Conference for Plains Archeology and presided over one of the symposia. During the year he also served as a member of the executive committee for the Divi-

sion of Anthropology and Psychology, National Research Council. Dr. Roberts' report of the work of the River Basin Surveys during the fiscal year appears in another section of this report.

Dr. John P. Harrington, ethnologist, continued the revision of his grammar of the Maya language. Study of sources and the vast literature on the subject shows that there were 10 linguistic stocks in southern México and Central America that had Maya-style hieroglyphic writing. The work also included revision of a previous paper on Maya hieroglyphs.

A study incident to this Maya work was the determination of the origin of the word "Maya." This word appears first in the letter written by Bartholomew Columbus in 1506 telling of the fourth voyage of Columbus. The letter employs the spelling "Mayam" which is clearly derived from the native Maya name for Yucatán, Mayab.

During the winter a paper was prepared on the names "Tiwa" and "Tewa," designations of two languages in New Mexico. Early in the spring Dr. Harrington prepared a series of six maps of America showing the meanings of State, province, and country names.

On April 14 Dr. Harrington left Washington for Old Town, Maine, to pursue ethnological and linguistic studies on the Abnaki Indians. He was engaged in this project at the end of the fiscal year.

Dr. Henry B. Collins left Washington in June for the Arctic, having been invited by the Canadian Government to conduct archeological excavations with the assistance of Colin Thacker of the National Museum of Canada at Frobisher Bay on Baffin Island, where Charles Francis Hall in 1868 had reported ancient Eskimo house ruins and where a large group of Eskimo now live. The Eskimo ruins were found—buried remains of semisubterranean houses made of stones, whale bones, and turf. Excavation showed that the site had been occupied successively by Eskimo of both the prehistoric Dorset and Thule cultures. Comparison with other prehistoric Eskimo sites indicated that the Dorset phase represented is one of the earliest of that culture known. The Thule phase, which followed the Dorset, is likewise early, showing close affinities with northern Alaska, its place of origin. In addition to the archeological work, measurements were obtained and photographs taken of 80 adult Eskimo—40 males and 40 females—at Frobisher Bay. This was the first anthropometric study to be made of the present-day Baffin Island Eskimo.

In Washington Dr. Collins continued as anthropological adviser for the *Encyclopaedia Arctica*, which Dr. Vilhjalmur Stefansson is preparing for the Office of Naval Research. Dr. Collins' term of office as Chairman of the Board of Governors of the Arctic Institute of North America terminated at the end of the calendar year 1948, but he continued as chairman of the directing committee for the Institute's

Bibliography of Arctic Literature and Roster of Arctic Specialists. In continuation of the archeological program begun in 1948 Dr. Collins left Washington in May to conduct excavations at Resolute Bay, Cornwallis Island, N. W. T., under the joint auspices of the Smithsonian Institution and the National Museum of Canada.

From July 1 to September 10 Dr. Fenton was engaged in field work among the Seneca Indians of western New York on a grant from the Viking Fund of New York City. Working at Quaker Bridge on Allegany Indian Reservation, he obtained a life history of an aged Seneca named Chauncey Johnny John with whom Dr. Fenton has worked since 1933. Especially fine materials were collected on social organization, kinship, and age grades. Twelve reels of recordings were made which included the entire ritual of the Seneca Dark Dance, the opening address and several long prayers belonging to the Green Corn Festival, the entire Women's Rite of Thanksgiving to the cultivated crops, and an origin legend for the False-face Society in Seneca and in English.

The Fourth Conference on Iroquois Research, under the direction of Dr. Fenton, met at Red House, N. Y., October 8-10, to review outstanding accomplishments in Iroquoian studies in the fields of linguistics, ethnology, and archeology. The Proceedings of the Conference, edited by Dr. Fenton, were issued in mimeograph form by the Smithsonian Institution.

The project of collecting materials for a political history of the Six Nations was reported in a general paper to the American Philosophical Society on November 4. The same research led to examining the Kirkland Papers in Hamilton College Library, and on December 1 Dr. Fenton addressed the College on its founder: "Samuel Kirkland: Observer, Negotiator, and Educator." A lecture was given to the Anthropology Club of Syracuse University, and manuscripts were examined in local libraries. Work continued in the manuscript collections of the New York Historical Society and at the New York Public Library. The Massachusetts Archives in the State House, the Essex Institute in Salem, and the Peabody Museum of Salem were visited in January. Three reels of the Pickering Papers were completed and filed. Arrangements were made with Dr. C. M. Barbeau of the National Museum of Canada for obtaining microfilm of documents in Canadian libraries for the American Philosophical Society Library.

During the year Dr. Fenton served as a member of the Language Panel of the United States National Commission for UNESCO; he represented the Smithsonian at meetings of the Policy Board of the United States National Indian Institute, and in subsequent conferences at the State Department toward a Second Inter-American Confer-

ence on Indian Life, for which he prepared a paper. He served as President of the Anthropological Society of Washington.

Dr. Fenton published several papers on anthropological subjects in various journals during the year.

The research activities of Dr. Gordon R. Willey, anthropologist, during the year were confined principally to study of data and materials previously obtained in the field. They included the final preparation of a monograph, "Archeology of the Florida Gulf Coast," a culmination of studies begun by the Bureau of American Ethnology as early as 1923, with Dr. Willey engaged on the project since 1940. The war and other duties interrupted the completion of the manuscript, but it is now in process of publication by the Smithsonian. Eight other manuscripts by Dr. Willey are in press or awaiting publication, and four additional manuscripts are in preparation: "Ancon-Supe: Formative Period Sites of Central Perú" (with J. M. Corbett and L. M. O'Neale); "Huari, an Important Site in the Central Peruvian Highlands" (with D. Collier and J. H. Rowe); "Prehistoric Settlement Patterns in the Virú Valley, Perú," and "Archaeological Explorations in the Parita Zone, Panamá."

Dr. Willey served in a consultative capacity for the period of final editing of volumes 5 and 6 of the Handbook of South American Indians (Bureau Bulletin 143) and also assisted with certain administrative matters concerned with the Smithsonian River Basin Surveys.

Dr. Willey participated in a series of round-table discussions under the leadership of Dr. A. L. Kroeber during the months October through February. These meetings, held at Columbia University, New York, were concerned with general discussions of anthropological method and theory. Throughout the year he served as assistant editor for the Handbook of Latin American Studies of the Library of Congress Hispanic Foundation. He also served as assistant editor of the journal *American Antiquity*, with reference to the South American area.

From March through May Dr. Willey served as Smithsonian representative at several committee meetings of the State Department Committee for Scientific and Cultural Cooperation, and at an open meeting of the Caribbean Commission.

SPECIAL RESEARCHES

Miss Frances Densmore, collaborator of the Bureau, submitted to the Bureau a manuscript entitled "Musical Customs of the Indians of the Paraná Delta and La Plata Littoral and the Gran Chaco."

INSTITUTE OF SOCIAL ANTHROPOLOGY

The Institute of Social Anthropology was created in 1943 as an autonomous unit of the Bureau of American Ethnology to carry out

cooperative training in anthropological teaching and research with the other American republics. During the past year it was financed by transfers from the Department of State totaling \$97,900 from the appropriation "Cooperation with the American Republics, 1949." Long-range planning for the Institute became increasingly difficult during the year because of threatened budget reductions for the fiscal year of 1950. Otherwise, the Institute continued to function much as in previous years, and good work was done by all staff members. Principal activities were as follow:

Washington office.—Dr. George M. Foster, Director of the Institute of Social Anthropology, made a 3-weeks trip to Spain in November 1948 to investigate the possibility of ethnographical field work in that country, with a view to throwing additional light on the development of the contemporary cultures of Hispanic America. In March 1949 Dr. Foster made a second trip to Spain, serving as Smithsonian Institution delegate at the centennial celebration of the Royal Academy of Natural, Exact, and Physical Sciences of Madrid. Dr. Gordon R. Willey assumed direction of the Institute of Social Anthropology during Dr. Foster's absence.

Upon the recommendation of the Director a grant-in-aid was extended by the Department of State to bring Dr. Luis Duque Gómez, Director of the Instituto Etnológico y Servicio de Arqueología of Bogotá, Colombia, to the United States for a 3-months period, October 1948 to January 1949. An itinerary was arranged by Dr. Foster whereby Dr. Duque was able to visit the larger universities and anthropological centers in the United States both in the East and in the West. Also upon the recommendation of the Director, a like invitation was extended to Dr. José Cruxent, Director of the Museo de Ciencias Naturales in Caracas, Venezuela. Dr. Cruxent is expected to arrive in the United States in August 1949.

Brazil.—Drs. Donald Pierson, sociologist, and Kalervo Oberg, social anthropologist, continued to give courses at the Escola Livre de Sociologia e Política in São Paulo, Brazil. Dr. Pierson, assisted by students from the school, completed field work in the *caboclo* community of "A Vila" near São Paulo, and completed a manuscript describing this work. Dr. Pierson also served as official observer of the United States Government at the UNESCO Conference held in Montevideo, Uruguay, September 6-10, 1948, to consider ways and means of stimulating the development of science in Latin America. He was brought to the United States at the end of June 1949, for consultation on future plans for work in Brazil. Dr. Oberg spent July and part of August 1948 in field work among the Indians of the headwaters of the Xingú River. In June 1949 he left on a 3-months trip to the Paressí and Nambiquara groups, northwest of Cuiabá in

Mato Grosso. On both of these trips he was accompanied by students from the Escola Livre.

Colombia.—Dr. John H. Rowe returned to the United States from Popayán, Colombia, in September to accept a permanent position at the University of California. Dr. Raymond E. Crist, professor of geography at the University of Maryland, was employed in February 1949 on a temporary basis to replace Dr. Rowe. In the short time Dr. Crist has been in Popayán he has given courses and lectures in the Universidad del Cauca, dealing with Iberian culture and its dissemination in the New World, and with geographic methods and theories. He has made several short field trips to small communities near Popayán, and has been host to the American Ambassador, Willard L. Beaulac, who, with his private party, flew from Bogotá for the express purpose of becoming acquainted with the work of the Institute in Popayán.

México.—Dr. Isabel Kelly, social anthropologist, continued to represent the Institute at the Escuela Nacional de Antropología in Mexico City, giving anthropology courses and guiding independent research of students. A part of the spring of 1949 again was spent in the Totonac area, where final field notes on this group were taken, preparatory to writing a monograph describing the results of three seasons of work. Dr. Stanley Newman, linguist, resigned from the Institute in February 1949, to accept a position at the University of New Mexico. Up to this time he continued his teaching schedule at the Escuela. His research included investigations of the Otomi and Nahuatl Indian languages, and participation in the literacy campaign of the Mexican Government. A significant paper on the Otomi language was completed, and a major monograph on Nahuatl was undertaken.

Perú.—Dr. Allan Holmberg resigned from the Institute in August 1948 to accept a permanent position at Cornell University. He was immediately replaced by Dr. George Kubler, of Yale University, who arrived in Lima early in September. Dr. Kubler continued teaching projects in the Instituto de Estudios Etnológicos, and also gave a course in the University of San Marcos. He devoted much attention to the social history of the colonial period in Perú, with particular emphasis on demography, and shifts in populations during this period. This work will to a considerable extent close the gap between the data of archeological studies in the Virú Valley in north Perú, made by Smithsonian and other scientists, and the contemporary studies made by Dr. Holmberg and teachers and students of the Instituto de Estudios Etnológicos, thus completing one of the longest sequences of culture history known from any part of the world. Dr. Kubler made a brief trip in March 1949 to Bogotá and Popayán, to investigate

documents in the Colombian capital dealing with demographic movements on the west coast of South America in colonial times, and to consult with Dr. Crist on Institute of Social Anthropology matters. In June 1949 he served as Adviser to the American Delegation at the Third Annual Interamerican Indian Congress, held in Cuzco.

Publications.—Institute of Social Anthropology Publications Nos. 8 and 9 appeared during the year and Nos. 10, 11, and 12 were in press. These are listed with the publications of the Bureau of American Ethnology.

RIVER BASIN SURVEYS

The River Basin Surveys, organized in 1946 as a unit of the Bureau of American Ethnology to carry into effect a memorandum of understanding between the Smithsonian Institution and the National Park Service providing for the salvage of archeological and paleontological materials that will be lost as a result of the nation-wide program for flood control, irrigation, hydroelectric, and navigation projects sponsored by the Federal Government, continued its operations during the year. As in the past, the investigations were conducted in cooperation with the National Park Service and the Bureau of Reclamation of the Department of the Interior, the Corps of Engineers, Department of the Army, and a number of nongovernmental local institutions. The work was financed by the transfer of \$145,400 (\$20,000 of which was appropriated in the 2d Deficiency Act and did not become available for actual use until the beginning of fiscal 1950) to the Smithsonian Institution by the National Park Service. The money comprising these funds was derived in part from the Bureau of Reclamation and in part from the National Park Service.

Activities in the field consisted mainly of reconnaissance or surveys for the purpose of locating sites that will be involved in construction work or are so situated that eventually they will be inundated. There was a limited testing of sites to determine their nature and extent, where such was deemed essential, and at seven locations extended excavation or intensive testing was carried on. The surveys covered 67 reservoir areas scattered throughout 8 river basins and 14 States. At the end of the year the total of the reservoir areas surveyed or where some digging has been done since the start of the program in July 1946 had reached 154 located in 21 States. During the course of the work 2,107 archeological sites have been recorded, and of that number 456 have been recommended for excavation or further testing. Thus far preliminary appraisal reports have been finished for all the reservoirs, and 97 have been mimeographed for distribution to the cooperating agencies. Where several reservoirs form a unit in a single

drainage subbasin the information on all is included in a single report, so that the 97 mimeographed pamphlets contain information on some 130 of the reservoir projects. In addition to the archeological papers, one comprehensive report on the paleontological problems in the Missouri Basin was also issued. More detailed technical reports completed for a number of projects have appeared in scientific journals or are awaiting publication.

The distribution by States of all the reservoirs investigated, as of the close of the fiscal year, is as follows: California, 16; Colorado, 23; Georgia, 2; Idaho, 9; Illinois, 2; Iowa, 3; Kansas, 6; Minnesota, 1; Montana, 5; Nebraska, 16; New Mexico, 1; North Dakota, 13; Oklahoma, 5; Oregon, 12; South Dakota, 9; Tennessee, 1; Texas, 10; Virginia, 1; Washington, 9; West Virginia, 2; Wyoming, 8. Excavations completed during the year were: Colorado, 1; Nebraska, 1; North Dakota, 1; Oklahoma, 1; Oregon, 1; Washington, 1. In a number of cases the digging was started in the previous fiscal year and continued over into fiscal 1949. Other States where excavations were made in prior years are: Kansas, 1; New Mexico, 1; Texas, 1; and Wyoming, 1.

As has been the case since the start of the River Basin Surveys program, staff men in the field received full cooperation from representatives of the National Park Service, the Bureau of Reclamation, the Corps of Engineers, and various State agencies. Temporary office and laboratory space was provided at some of the projects, transportation and guides were furnished at others, and in several instances labor and mechanical equipment made available by the construction agency materially increased excavation operations. Had it not been for this assistance it would not have been possible to accomplish all that was done during the year. The National Park Service was primarily responsible for obtaining the funds which supported the program and continued to serve as the liaison between the Smithsonian Institution and the other governmental agencies, both in Washington and through its several regional offices. The untiring efforts of Park Service personnel played a large part in furthering the progress of the program as a whole.

The main office in Washington had general direction and supervision over the work in Oklahoma, Texas, Minnesota, North Dakota (in the drainage of the Red River of the North), Iowa, Illinois, Colorado (outside of the Missouri Basin), and California. In the Missouri Basin, direction of the program was from a field headquarters at Lincoln, Nebr., where all the materials collected by the survey and excavation parties were also processed. Activities in the Columbia Basin were supervised from a field office located at Eugene, Oreg.

Washington office.—Throughout the fiscal year the main head-

quarters of the River Basin Surveys continued under the direction of Dr. Frank H. H. Roberts, Jr. Carl F. Miller, Joseph R. Caldwell, and Ralph S. Solecki, archeologists, were based on that office, although Caldwell and Solecki did not work full time for the Surveys.

Richard P. Wheeler was appointed archeologist on the staff on August 27, and from that date until May 16 functioned under the direction of the Washington office, although all his work was done in the field. On May 16 he was transferred to the Missouri Basin and from then until the close of the year was based on the Lincoln headquarters.

Mr. Miller spent most of the year in the office preparing reports based upon material gathered in the field during the previous year, and assisting the Director in reviewing the literature pertaining to archeological manifestations occurring in areas where additional reservoir projects are proposed. His "Appraisal of the Archeological Resources of the Clark Hill Reservoir Area, South Carolina and Georgia" was completed and mimeographed for distribution in December. Another article, "Early Cultural Manifestations Exposed by the Archeological Survey of the Buggs Island Reservoir in Southern Virginia and Northern North Carolina," was published in the *Journal of the Washington Academy of Sciences*, vol. 38, No. 2, December 1948. A paper based on information obtained during the survey of the Clark Hill Reservoir, "The Lake Spring Site, Columbia County, Georgia," was to appear in *American Antiquity*, vol. 15, No. 1, July 1949. Several others have been accepted for publication elsewhere. Mr. Miller made two trips to Clarksville, Va., in the late winter and early spring, the first for the purpose of investigating unauthorized pot-hunting activities in the Buggs Island Reservoir area, and the second to speak before the Archeological Society of Virginia on the problems of the Buggs Island archeological program. He also went to Richmond, Va., where he spent 2 days at the Valentine Museum examining manuscripts and other documentary materials pertaining to early explorations and surveys in Virginia, northern North Carolina, and eastern West Virginia in an effort to obtain further data bearing on the aboriginal history of the Buggs Island area.

In July and early August Mr. Caldwell collaborated with Mr. Miller in working over the materials collected during the Clark Hill Reservoir survey. During that period he prepared a paper, "The Rembert Mounds, Elbert County, Georgia," based on new information obtained at Clark Hill. Another article, "Palachacolas Town, Hampton County, South Carolina," was printed in the *Journal of the Washington Academy of Sciences*, vol. 38, No. 10, October 15, 1948. On August 19 Mr. Caldwell joined Dr. Robert E. Bell, of the University of Oklahoma, at Wagoner, Okla., and began the excavation of a large mound

at the Norman Site in the Fort Gibson Reservoir basin. That work continued until September 22. Mr. Caldwell returned to Washington on September 25 and on October 3 was granted leave of absence to join an expedition of the Universities of Chicago and Pennsylvania in Iraq and Iran. He returned to duty on the staff of the River Basin Surveys June 26, 1949, and began work on materials from the Allatoona Reservoir basin in Georgia.

Ralph S. Solecki devoted the summer and fall months to the preparation of reports on his work at the Bluestone and West Fork projects in West Virginia. The Bluestone paper was mimeographed and distributed in December and that for the West Fork in March. Mr. Solecki also prepared a detailed article, "An Archeological Survey of Two River Basins in West Virginia," which was published in *West Virginia History*, vol. 10, Nos. 3 and 4. In December he was temporarily transferred to the regular staff of the Bureau of American Ethnology and was sent to Natrium, W. Va., to excavate a mound on the property of the Pittsburgh Plate Glass Co. The latter organization planned to level the mound to make room for new buildings and in order that nothing of value might be destroyed made arrangements with the Bureau to have it done properly, providing the necessary labor for the project. Mr. Solecki returned to the River Basin Surveys on January 12. In following months he continued to work on the material from West Virginia and on May 8 was transferred to the Smithsonian Institution staff so that he could accompany a party of the United States Geological Survey to Alaska for an archeological reconnaissance along the upper Kukpowruk and Kokolik Rivers in northern Alaska. At the close of the fiscal year he reported having located some 50 late Eskimo sites.

California.—Investigations in California were not as extensive as in previous years and were limited to three reservoir projects. In October David A. Frederickson and Albert Mohr, field assistants of the River Basin Surveys, working under the general supervision of Francis A. Riddell, assistant archeologist of the California Archeological Survey, University of California, and in cooperation with the latter organization, examined the areas to be flooded by the Black Butte, Farmington, and New Melones Reservoirs, all Corps of Engineers projects.

The Black Butte Dam is to be built in Stony Creek, and the basin it will flood lies in Glenn and Tehama Counties, a region formerly occupied by the Wintun. The survey located 26 sites in the area and it is believed that excavations in a number of them would provide a reasonably accurate and balanced picture of the material culture of the Indians who lived there.

The Farmington Dam is planned for Littlejohn Creek, and the

reservoir formed by it will inundate areas in both San Joaquin and Stanislaus Counties. It would seem that in aboriginal times that section was more suitable for occupation than it has been in recent years because 24 sites were found there. Most of them are of the surface variety, indicating seasonal occupation, but some have cultural deposits with artifacts, bone, and shell occurring in some abundance. All the artifacts are alike, both in types and material, and are of particular interest because they consist in the main of crude core tools, cores, and flake tools, with only a few blade fragments and no arrow-heads. The material from which they were made occurs in the local stream beds in the form of cobbles. Excavations in a number of the sites are recommended for the purpose of obtaining information both as to their probable position in the chronological sequence of the area and as to their relationships.

The New Melones Reservoir will fill a deep and narrow valley formed by the Stanislaus River in Calaveras and Tuolumne Counties. The area is one in which there was considerable mining activity at one time, and there is an existing reservoir which has modified the surface of the ground to some degree. Consequently only four sites were noted, despite the fact that the Northern Miwok once inhabited the region, and no further archeological activities were recommended.

Colorado.—Because of the physiographic character of the area included within the political boundaries of Colorado the numerous projects there occur within the limits of several drainage systems. Consequently some of the archeological investigations have been conducted as a part of the Missouri Basin program, while others have been carried on as separate units of the Surveys as a whole. Only the latter are discussed in this section of the report.

At the start of the fiscal year Donald Eastman and Gary L. Yundt, field assistants, were continuing reconnaissance of the area involved in the Taylor Lake Enlargement of the Gunnison-Arkansas project. They completed this work on July 7, after having located only two sites that will be covered by the waters of the larger lake resulting from the construction of a new dam. The sites apparently were former camps and only surface material was present. The latter, however, is crude in character and suggests a much earlier cultural horizon than that of the late nomads. Neither of the sites showed sufficient depth to warrant excavation, and no further work is recommended for that project. From Taylor Lake, Eastman and Yundt proceeded to the Cimarron Damsite located on the Gunnison River just below the confluence of the latter and the Cimarron. The area to be flooded by this project had previously been surveyed in part by the Chipeta Chapter of the Colorado Archeological Society, Montrose, which made it possible for the Survey men to complete

their work by July 17. All the sites located, eight in number, indicate that they were camping places, and the surface materials collected from them are typical of the late nomadic Indians of the region. Similar sites are abundant outside of the basin of the proposed reservoir, hence no further investigations are needed there. Eastman and Yundt returned to Gunnison, Colo., from the Cimarron project and, having completed their reports, resigned from the River Basin Surveys on July 23. During the course of their investigations they worked under the general direction and supervision of Dr. C. T. Hurst of Western State College, Gunnison, who had cooperated with the River Basin Surveys on a number of previous surveys.

Arnold M. Withers, archeologist, completed reconnaissance of nine proposed reservoir areas in the Blue-South Platte project, which he had started toward the end of the previous year, and examined six of those in the Gunnison-Arkansas project east of the Rocky Mountains. All the proposed reservoirs of the Blue-South Platte project, Two Forks, Shawnee, Blue, Snake, Tenmile, Ruedi, Pando, Piney, and Empire, are located in the high mountain valleys of the Colorado Rockies at altitudes ranging from 8,000 to 10,000 feet above sea level. They will be situated in Douglas, Park, Summit, Eagle, Pitkin, and Clear Creek Counties. Only six definite archeological sites were found in the nine reservoir areas, although further surveys are recommended for the Snake and the upper part of the Two Forks, and they appear to have been temporary camps occupied by a people engaged in hunting and gathering wild food products. At none of them are the deposits of sufficient depth to warrant excavation. The materials collected from the surface suggest that the sites are prehistoric, although they have no great age, and that they probably are attributable to Ute Indians.

The six proposed reservoirs of the Gunnison-Arkansas project, the Graneros, Cedarwood, Ben Butler, Pueblo, Higbee or Purgatoire, and Horse Creek, are in the broken country of the High Plains along the Arkansas or its tributaries in Pueblo, Huerfano, Otero, and Bent Counties, Colo. The rapid survey of the area by Withers produced a total of only 13 sites for the project. They consist of rock shelters and open camps. At a number of the latter, tipi rings were noted. Although the small number of sites indicates that the area was sparsely populated, the character of the materials collected from them suggests that a long period of time is represented. Testing is recommended for some of the rock shelters and two of the stone-circle sites, but none appears to be worthy of complete excavation. A more intensive investigation of the Pueblo and Purgatoire reservoir basins is indicated if the projects are authorized and construction work is started. Withers completed his work and left the Surveys on August 14.

During the investigations he was provided with a base of operations by the University of Denver.

Preliminary reconnaissance of the eight reservoirs included in the Colorado-Big Thompson project by the University of Colorado was completed in the autumn of 1947. In accordance with recommendations made at that time, the River Basin Surveys arranged for a more intensive survey and the testing of some sites in the Granby Reservoir on the Colorado River in Grand County. That work was carried out during August and September by Robert F. Burgh, field assistant, who was on leave of absence from the University of Colorado Museum, aided by William Woodard and Byron W. Houseknecht, student assistants. Only four sites were located in the area to be flooded, and two of those showed only surface traces of stone chips and a few implements. Another consisted of stone circles, presumably tipi rings, but yielded no artifacts. The fourth was a camp site located on the west side of the basin on a terrace adjacent to Stillwater Creek. Trenching of the site produced a variety of cultural remains consisting of hearths, potsherds, stone projectile points, stone scrapers, manos, metate fragments, and animal bones. No traces of house remains were found, and the occurrence of fireplaces at varying depths below the surface suggests that there were repeated but casual occupations of the terrace during successive seasons without any permanent habitation. Potsherds from the site were of two kinds, cord-marked and corrugated. The cord-marked is from a cooking ware of Woodland type, while the corrugated undoubtedly came from the Northern Periphery of the Southwest. The pottery indicates that the site probably dates between A. D. 900 and 1300. The bulk of the material obtained there shows that the affiliations were clearly with the prehistoric Plains cultures, particularly those responsible for the camp sites along the foothills in northeastern Colorado.

Conclusions, based on the results of the work in that area, are that no further investigations are warranted in the Colorado-Big Thompson project unless construction operations accidentally uncover unsuspected remains. West of the Continental Divide there are no sites as good as the one examined in the Granby Reservoir, while east of it there are numerous examples outside the reservoir basins which not only appear to have the same cultural identity as those within them but to offer greater promise.

Columbia Basin.—Work in the Columbia Basin was based on the field headquarters at Eugene, Oreg., where office and laboratory space was provided by the University of Oregon. Dr. Philip Drucker, on detail from the Bureau of American Ethnology, continued to direct the program until October 1 when he returned to Washington and his regular duties prior to being granted military leave beginning October

22. After Dr. Drucker's departure from Eugene, Homer Douglas Osborne, archeologist, was appointed acting field director and placed in charge of the office there. He continued in that capacity throughout the remainder of the year.

From July to early September, two parties consisting of two men each, were engaged in the investigation of reservoir areas in the Columbia Basin. During that time they explored 15 reservoir basins, 6 of which are Corps of Engineers projects, and 9 of which are projects of the Bureau of Reclamation. The Corps of Engineers projects include the 4 navigational reservoirs on the lower Snake River in Washington, Ice Harbor, Lower Monumental, Little Goose, and Lower Granite. In addition Lucky Peak Reservoir basin in Idaho was examined, and the results of the survey of Chief Joseph (Foster Creek) Reservoir in east-central Washington initiated some years ago by the University of Washington were checked and the survey was completed. The work done in Bureau of Reclamation reservoirs involved the examination of sites in the Deschutes project, Benham Falls and Prineville Reservoirs, and checks of the proposed enlargement of Wickiup and Crane Prairie Reservoirs. In addition a series of small reservoirs in eastern Oregon and central Idaho were surveyed. They were: Mason, Ryan Creek, and Bully Creek in northeastern Oregon; and Lost Valley Enlargement and Horse Flat Reservoirs in Idaho. Within the boundaries of those 15 reservoir basins a total of 128 archeological sites were found and recorded.

Excavation projects were carried out in the McNary Reservoir area, Oregon-Washington, and in the O'Sullivan (Potholes) Reservoir, Washington. The work at McNary was a cooperative undertaking between the River Basin Surveys and the University of Oregon, while that at O'Sullivan was a joint venture between the Surveys and the University of Washington.

Investigations at McNary were carried on from August 5 to September 11 under the direction of Homer Douglas Osborne. The digging was done by students from various west coast universities. Extensive tests were made in two sites on Berrian Island, Wash., which had been designated as a source of aggregate for dam construction, and at an important one on the Oregon side of the river. In addition to previously unknown information about local Indian village and house patterns, the excavations produced 48 burials and 1,870 artifacts. The skeletal material provides one of the largest series thus far available for study and should throw considerable light on the physical characteristics and relationships of the people. The artifacts will give a good cross section of the material culture prevailing at the time of first contact with European influence.

The O'Sullivan project was well under way at the start of the fiscal

year and continued until August 19. Richard D. Daugherty, archeologist, was in charge of the party, which consisted of students from the University of Washington. The scene of operations was a village site located on the shores of Moses Lake, an area which will be inundated when the dam is completed. Three house-pit depressions and the terrain immediately surrounding them were carefully examined. Good data were obtained on the form and construction of the houses, and the series of artifacts recovered during the digging will aid in determining the cultural status of the people. The absence of all European objects indicates that the site antedates the period of exploration and early trading posts. The results at O'Sullivan, in general, indicate that more intensive work should be done there.

Special mention should be made of the excellent cooperation on the part of other governmental agencies. The National Park Service, through the Region Four office at San Francisco and the Columbia Basin Recreational Survey office at Portland furnished the Eugene office with current information on reservoir priorities, construction schedules, and field maps. The Bureau of Reclamation, through the Region One office in Boise, Idaho, not only supplied maps of reservoir areas and information on their projects, but greatly facilitated the archeological investigations by placing vehicles at the disposal of the survey parties. The Corps of Engineers, through the office of the Division Engineer, and also the Portland and Seattle District offices, provided maps and other essential information. In addition the Portland District office made a vehicle available for use at the McNary project, furnished a temporary headquarters, and provided assistance in the mapping of sites.

Throughout the period of active work Dr. Drucker made numerous trips from the Eugene office to the various parties and the excavation projects. He also met with Dr. Robert F. Heizer, Director, California Archeological Surveys, and assisted in perfecting plans for the cooperative work to be carried on by that organization. After completing arrangements for maintaining the Eugene office during the winter months, he returned to Washington on October 1.

At the start of the year George L. Coale, archeologist, and Francis A. Riddell, Harry S. Riddell, Jr., and Homer Douglas Osborne, field assistants, were engaged in the survey of the Benham Falls, Prineville, Wickiup, and Crane Prairie Reservoirs. That work was completed on July 11, and Coale and Osborne returned to Eugene to assist Dr. Drucker in making preparations for the excavations at the McNary Reservoir. The two Riddells proceeded to northeastern Oregon where they made a reconnaissance of the Mason Creek and Ryan Creek Reservoirs. The surveys there being finished on July 16, they moved to Chief Joseph (Foster Creek) where on July 26 they completed

the investigations previously started by the University of Washington. Francis A. Riddell resigned from the Surveys on July 30. George L. Coale met Harry S. Riddell, Jr., at Pasco, Wash., on the 27th, and the two proceeded from there to Ice Harbor and Lower Monumental Reservoirs. After their reconnaissance of those two projects they went on to the Lucky Peak, Lost Valley, and Horse Creek Reservoirs in Idaho, and the Bully Creek Reservoir in Oregon. William W. Burd, who was appointed a field assistant on August 16, and Joel L. Shiner, who was promoted from the crew at McNary to field assistant, spent the period from August 18 to 30 examining the Little Goose and Lower Monumental Reservoirs for archeological remains. Burd returned to Eugene and resigned on August 31, while Shiner rejoined the party at the McNary excavations and continued with it until September 9 when he resigned. After completing the field work at Moses Lake, Richard D. Daugherty proceeded to Seattle, Wash., where he processed and studied the materials obtained from the excavations and prepared a report on the results of the investigations. His appointment as archeologist terminated on September 16.

As previously mentioned, Osborne spent the first few weeks of the year on survey duties and was then recalled to Eugene to aid in preparations for the McNary project. He went with the party to that reservoir on August 5 and on August 16 was promoted to archeologist and placed in charge of the excavations. Upon his return to Eugene in September he was made Acting Field Director, and continued to function in that capacity throughout the remainder of the year. During the fall and winter months he wrote the preliminary appraisal reports for the 15 reservoirs surveyed during the summer, prepared a summary report and a longer, more detailed manuscript on the McNary excavations, and made compilations of data on historical references, ethnological descriptions, and trade goods to be used as ready sources for information on the Columbia Basin. During February he made a survey of the Big Cliff Reservoir and checked the various bank-control projects of the Corps of Engineers along the Willamette River and its tributaries. On May 26 and 27 he participated in a conference at Pendleton, Oreg., where representatives of the Corps of Engineers, the National Park Service, and the Bureau of Indian Affairs discussed the problem of the removal of Indian burials from areas that are to be flooded. Throughout the winter months Osborne was assisted in the laboratory by Lloyd Collins and Hiroto Zakoji, students of the University of Oregon.

Illinois.—Archeological studies in Illinois consisted of the examination of the records of previous surveys in the Illinois River Basin and the investigation of two reservoir areas where dams were under construction.

During February Richard P. Wheeler conferred with the District Engineer at Chicago about the flood-control program for the Illinois River Basin, discussed archeological problems involved with Dr. John C. McGregor, associate professor of anthropology at the University of Illinois, and with Dr. Kenneth G. Orr, assistant professor of anthropology at the University of Chicago. March 10 to 18, Wheeler checked the survey files of the Department of Anthropology and worked in the Harper Library, at the University of Chicago. Leaving Chicago he proceeded to Springfield, Ill., where he conferred with Dr. Thorne Deuel, Director of the Illinois State Museum. From March 21 to 25 he made a reconnaissance of the Fondulac and Farmdale Reservoir basins, the dams then being built, on Farm Creek, in Tazewell County, Ill. No archeological sites were found in those areas, and no further work was recommended.

In April Wheeler prepared a preliminary report, "Archeological Resources of the Proposed or Considered Reservoirs in the Illinois River Basin, Central and Northern Illinois," which embodied a synopsis of present knowledge of the archeology of this region and provided a list of known sites (based on the site list prepared for the River Basin Surveys in September 1947 by Dr. J. C. McGregor) in 10 of the 15 proposed reservoirs in the Illinois River Basin for which maps are available.

On May 16 Wheeler was transferred to the Missouri Basin, and his activities from then until the end of the year are included in that portion of the report.

Iowa.—Work in Iowa was confined for the most part to surveys of two reservoir basins and the area immediately adjacent to the dam site of a third where preliminary construction activities were already under way.

Richard P. Wheeler spent the period December 6 to 10 at the Red Rock Reservoir project, on the Des Moines River, and December 13 to 15 at the Rathbun Reservoir on the Chariton River. During the progress of the work he consulted with Dr. Charles R. Keyes, Director of the Archeological Survey of Iowa, about the character and extent of the archeological remains in the two areas. In his reports prepared at the conclusion of his field investigations, Wheeler records 15 mound and occupation sites in the Red Rock basin, 4 of which will be involved in the dam construction, and 6 in the Rathbun area. More intensive studies under more favorable field conditions were recommended for both reservoirs.

Between January 24 and February 3, Wheeler made a preliminary reconnaissance of the Coralville Reservoir, on the Iowa River, in Johnson and Iowa Counties, Iowa. Eight mound sites and one occupation site were located. Ten other sites, recorded prior to the

survey, could not be found because of the deep snow cover. Further work will be necessary before recommendations can be made for the salvage of archeological remains in that reservoir area.

Missouri Basin.—The Missouri Basin project, as in previous years, continued under the general direction of Dr. Waldo R. Wedel and was based on the field headquarters at Lincoln, Nebr. During the fiscal year 12 new reservoir basins were surveyed for archeological remains; two areas only briefly examined in former seasons were revisited and subjected to intensive reconnaissance; while comprehensive excavations were carried on at one location. In addition to those activities and certain paleontological investigations, laboratory and office work were carried on throughout the year.

As the fiscal year opened, three archeological units and one paleontological unit were engaged in field work. The largest project was the excavation program at Medicine Creek, Nebr., under the field direction of M. F. Kivett, archeologist, with George Metcalf as assistant. The work was made possible through an agreement with the Bureau of Reclamation under which the Bureau provided labor and power equipment while the River Basin Surveys provided the technical supervision and maintained the scientific records. This project terminated on August 20, having produced a large body of data and artifacts for several inadequately known prehistoric culture horizons. Aside from the scientific returns of the operation, it is important to note that the applicability of power machinery to the excavation of aboriginal village sites under careful technical supervision was amply demonstrated. The findings add much new information to that previously obtained elsewhere in the Central Plains through the small-scale sampling of many sites.

A second unit under J. T. Hughes, archeologist, with J. M. Shippee as assistant, was at work in Angostura Reservoir, South Dakota. Intensive survey there added numerous sites to those recorded during preliminary reconnaissance in 1946; and also disclosed the presence of at least one site that may have an antiquity of several thousand years. Because of the extreme scarcity of data from this early period, and the usual difficulty of working such sites, it is imperative that further excavation be carried on there. From September 15 to 30 Hughes and Shippee carried on preliminary reconnaissance at the Edgemont and Keyhole Projects in Wyoming, and at the Pactola and Johnson Siding Reservoir basins in South Dakota. At Edgemont 28 sites were recorded, while 29 were noted at Keyhole. Only one was noted at Pactola and none at Johnson Siding.

A third unit under Paul L. Cooper carried on excavations at the Heart Butte Reservoir basin, North Dakota, through the month of July, and then transferred its activities to the proposed lower Oahe

Reservoir project on the Missouri River a few miles above Pierre, S. Dak. On the basis of findings by that unit, it appears unlikely that remains of any great importance to archeology will be lost at Heart Butte. At Oahe, 61 sites were recorded between Pierre and the Cheyenne River, a distance of about 40 miles. They include some of the largest, best preserved, and most impressive Indian village remains in the Missouri Basin. Most of them are virtually untouched by trained archeologists and, with one or two possible exceptions, none has been adequately tested by excavation. Five of the sites will be affected almost as soon as construction work begins on the dam site, the access roads, and the railroad classification yards. Hence, salvage operations will be necessary at an early date. Because of the abundance and variety of remains, comprehensive excavation has been recommended to begin soon and to be carried forward vigorously so that a representative sample of the materials to be affected by Oahe Reservoir may be saved.

From November 9 to 24 Cooper and Shippee excavated a burial mound in the spillway area of Fort Randall Dam, South Dakota. The Corps of Engineers provided a bulldozer and operator as needed, and assisted in numerous other ways. Without that cooperation, the work there would not have been possible. The findings, although not spectacular, are important because burial mounds are extremely rare on that portion of the Missouri, and their temporal and cultural relationships to other archeological complexes of the region can be determined, if at all, only through controlled excavations by trained investigators.

A paleontological unit under Dr. T. E. White was in the field from July 1 to October 1. It worked at the Boysen Reservoir, Wyoming; in the Canyon Ferry Reservoir area on the Missouri River north of Townsend, Mont.; at the Angostura Reservoir, South Dakota; and at the Cedar Bluff Reservoir on the Smoky Hill River in Kansas.

Limited field work was resumed in the spring. Richard P. Wheeler, archeologist, left Lincoln on May 27 for preliminary reconnaissance at several hitherto unvisited reservoir projects and for further survey of others previously examined in preliminary fashion. Projects visited by Wheeler prior to June 30 include Rocky Ford, Philip, Bixby, and Shadehill, in South Dakota; Cannonball and Dickinson, in North Dakota; Moorhead, in Wyoming-Montana, and Onion Flat in Wyoming.

Among the particularly gratifying features of the year's field work were the results achieved through use of power machinery and the direct cooperation extended by the Bureau of Reclamation at Medicine Creek and by the Corps of Engineers at Fort Randall Reservoir. Such cooperative work, in terms of research accomplished, is the most

economical way of salvaging archeological remains on the scale needed. Application of the same procedures, including mechanized earth-moving operations, to other projects seems to be the only way of obtaining irreplaceable scientific data in the little time left for its recovery.

In the laboratory 39 maps were drawn. Many of them were field maps, others were site and reservoir maps for use with published reports. Throughout the winter specimens were selected and photographed as analysis for technical reports proceeded. Including field photographs, a total of 918 negatives and 374 color transparencies were processed; 61 lantern slides were added to the slide series; 918 prints were made, cataloged, and filed; 1,008 prints were made for report illustrations and reference purposes; and 350 enlargements were made for publicity and reference use.

All specimens collected during the field season, a total of 45,233, were cleaned, numbered, cataloged, and stored. The majority of them came from Medicine Creek, Angostura, and Oahe Reservoirs. Samples of bone, shell, and vegetal specimens from various sites were packed and sent to specialists elsewhere for identification. In addition, soil samples from some of the sites were sent out for analysis, and wood and charcoal specimens were sent away for tree-ring studies.

The skeleton of an adolescent covered with thousands of shell beads, sent to Lincoln in a plaster case from the Harlan County Reservoir, Nebraska, in 1946, was mounted permanently for exhibit purposes. Pottery restoration, principally of Medicine Creek material, continued throughout the spring months, 17 earthenware vessels having been restored by June 30.

Information concerning over 129 sites was added to the site file, and 45 maps were indexed and added to the map reference file.

On July 1, J. Joseph Bauxar, archeologist, was stationed at the Lincoln, Nebr., headquarters, continuing the ethnohistorical research project he had started the preceeding year. The material collected consisted of such information as is pertinent to the archeologists' problem of determining the ethnic affiliations of the archeological complexes in the Missouri River Basin. Some 30 tribes and subtribes are represented in the Tribal Culture File. On January 9, 1949, Mr. Bauxar was transferred to the Oklahoma project of the River Basin Surveys and proceeded to Norman for the purpose of analyzing materials from the Norman site in the Fort Gibson Reservoir.

Wesley L. Bliss, archeologist, devoted the time from July 1 until January 8 in the preparation of a general article "Birdshead Cave, a Stratified Site in the Wind River Basin, Wyoming," and a technical report on the same project. In late August he visited the sites in the Medicine Creek area being excavated by the State Museum of the

University of Nebraska and in October accompanied a group from that institution on a trip to Signal Butte in western Nebraska for the purpose of reexamining the early sites at that location. On the basis of information obtained during the course of his work, he prepared a paper "Early and Late Lithic Horizons in the Plains" which was presented before the Sixth Conference for Plains Archeology at Lincoln in November. Mr. Bliss left the River Basin Surveys staff on January 8.

In addition to the field work previously mentioned, Paul L. Cooper in September accompanied Dr. Waldo R. Wedel, Dr. Gordon Baldwin of the National Park Service, and Dr. J. O. Brew and Frederick Johnson of the Committee for the Recovery of Archeological Remains, on an inspection trip to Missouri Basin archeological sites in Wyoming, Montana, North Dakota, South Dakota, and Nebraska. Throughout the remainder of the year his activities were centered in the laboratory at Lincoln. Until March 24 he was in charge of the Lincoln headquarters during such times as Dr. Wedel was in Washington, but from that date until June 30 devoted most of his attention to analyzing the data and specimens obtained during the field season and in the preparation of reports. He wrote a summary of the work done at two reservoirs in South Dakota, "Recent Investigations in Fort Randall and Oahe Reservoirs, South Dakota," which was published in *American Antiquity*, vol. 14, No. 4, April 1949.

Robert B. Cumming, Jr., archeologist, continued to plan and supervise the laboratory procedures, as mentioned in an earlier paragraph, and from March 24 until June 30 was in charge of the Lincoln office when Dr. Wedel was not present at the laboratory.

Following the summer field work Jack T. Hughes, archeologist, spent the remainder of the year in the laboratory studying the data and materials collected from the various reservoirs he had examined and writing reports on the results of his work. He prepared a memorandum on Cheyenne Basin archeology for the National Park Service and completed an article, "Investigations in Western South Dakota and Northeastern Wyoming," which was published in *American Antiquity*, vol. 14, No. 4, April 1949. He collaborated with Dr. Theodore E. White in writing a manuscript "The Long Site, an Ancient Camp in Southwestern South Dakota." The latter is a preliminary account of the archeology and physiography of one of the most significant sites yet found in the Angostura Reservoir basin. Hughes also prepared a paper, "Archeology and Environment in the Western Great Plains," which he presented at the Sixth Conference for Plains Archeology held in Lincoln in November. In addition he wrote a paper, "An Experiment in Relative Dating of Archeological Remains by Stream Terraces," which he read before the Anthropology

Section of the Nebraska Academy of Sciences in May. He wrote a memorandum on geological deposits and archeological remains in the Tiber Reservoir basin, on the Marias River in northern Montana, for the United States Geological Survey, and "A Note on Fireplaces" for the Plains Archeological Conference Newsletter. Earlier in the year he had prepared an article, "Naming Projectile Point Types," for the same journal. At the close of the year he was occupied with a report on the Nebraska State Historical Society's investigations at the Barn Butte site in western Nebraska and was continuing his work on the development of a correlation table dealing with early remains in the western United States.

Upon the completion of the excavation project at the Medicine Creek Reservoir, Marvin F. Kivett, archeologist, returned to Lincoln on September 1 and began the preparation of a brief preliminary report for the use of H. E. Robinson, District Manager of the Bureau of Reclamation. Included in it was a tabulation of work completed at various sites in the Medicine Creek Reservoir basin. After that manuscript was finished Kivett wrote a summary account, "Archeological Investigations in Medicine Creek Reservoir, Nebraska," which was printed in *American Antiquity*, vol. 14, No. 4, April 1949. He then turned his attention to completing a laboratory analysis of the more than 30,000 specimens collected at Medicine Creek and to a study of comparable materials gathered in the same area by parties from the Nebraska State Historical Society and placed at his disposal, with the accompanying data, for inclusion in the final technical report. In addition, Mr. Kivett wrote a technical paper on the prehistoric ossuary which he excavated at the Harlan County Reservoir in the fall of 1946, and another "Archeology and Climatic Implications in the Central Plains," which was presented before the Sixth Conference for Plains Archeology. Two brief articles, one concerning the use of power equipment in archeological work and the other dealing with pottery nomenclature, were printed in the Plains Archeological Conference Newsletter.

One trip of 4 days was made by Kivett to the Medicine Creek project during October for the purpose of marking trees from which sections for dendrochronological studies were to be cut under the supervision of the Bureau of Reclamation. In May he made a 1-day trip to the Harlan County and Medicine Creek Reservoirs to point out to members of the Missouri Basin Inter-Agency Committee archeological work completed and that contemplated for those reservoirs. Mr. Kivett resigned from the River Basin Surveys on May 31 to accept an appointment as Assistant Director of the Museum of the Nebraska State Historical Society.

George Metcalf, field and laboratory assistant, participated in the

excavations at Medicine Creek and, after his return to the Lincoln headquarters on August 24, assisted in the cleaning and cataloging of the last consignment of specimens from the project. From September 12 until October 20 he supervised and aided in the processing of some 7,000 specimens recovered from Medicine Creek sites by the Nebraska State Historical Society. As a part of that task all suitable shell, bone, and vegetal material was listed and prepared for submission to specialists for identification. Throughout the winter and spring months he worked with Mr. Kivett in the analysis of the Medicine Creek materials and wrote sections on worked bone, shell, and pottery for inclusion in the final technical report. He also assisted in the selection of specimens and the arrangement of photographic plates for the final report. At the end of the fiscal year he was engaged in making an analysis of the house remains in the Medicine Creek area.

J. M. Shippee, field and laboratory assistant, returned to Lincoln with the Hughes party on October 1 and from then until November 8 supervised the dismantling of the laboratory and its reinstallation in new quarters. Mr. Shippee then accompanied Mr. Cooper to the Fort Randall Reservoir, where he assisted in the excavation of a burial mound located on the site of the dam spillway. He returned to Lincoln in late November and spent the remainder of the year in the restoration of pottery and other specimens and in the cleaning and mounting, for exhibition purposes, of a juvenile skeleton which had been removed intact from an ossuary at the Harlan County Reservoir. He prepared a paper, "Some Problems of the Nebo Hill Complex," which was read before the Anthropological Section of the Nebraska Academy of Sciences on May 7. At the close of the year he was preparing and assembling equipment for the various parties starting for the field.

Richard P. Wheeler, archeologist, was transferred to the Missouri Basin in May and on May 27 left Lincoln to make a series of preliminary surveys at reservoir projects in South Dakota, North Dakota, Montana, and Wyoming. By the end of the year he had visited eight reservoir areas. On June 30 he was at Fort Washakie, Wyo., where he obtained permission from the Business Council of the Shoshones and Arapahos to make preliminary surveys of the proposed Soral Creek and Raft Lake reservoir basins, which are located in the Wind River Indian Reservation, immediately after the start of the new year.

Dr. Theodore E. White, paleontologist, confined his activities, with one minor exception, to work on the Missouri Basin problems throughout the fiscal year.

From July 1 to 12 the lower Eocene deposits in the Boysen Reservoir area on the Big Horn River north of Shoshoni, Fremont County, Wyo., were prospected for fossils. Five fossiliferous "pockets," which

will be inundated when the reservoir is flooded, were found. The results of the work there confirmed the conclusions of the members of the United States Geological Survey who had mapped the structure and stratigraphy of that area.

From July 14 to August 19 the Oligocene and Miocene deposits in the Canyon Ferry Reservoir area on the Missouri River north of Townsend, Broadwater County, Mont., were prospected for fossils. Material was obtained from three localities in the Oligocene and two in the Miocene. All those localities will be inundated.

After the close of the work at Canyon Ferry, White's party proceeded to the Angostura Reservoir on the Cheyenne River in Fall River County, S. Dak., to make a physiographic study of the area in connection with an early-man site. The period from August 21 to September 3 was spent in collecting data for that study. The party returned to Lincoln, Nebr., on September 4 in order to prepare a preliminary report on the results of the physiographic study.

From September 23 to October 1 the Upper Cretaceous Carlile Shale in Cedar Bluff Reservoir on the Smoky Hill River south of Wakeeney, Trego County, Kans., was prospected for vertebrate fossils. Although a number of specimens were found, they were so badly disintegrated by the crystallization of gypsum and the weathering of marcasite that they were not worth collecting.

About 70 specimens, representing 20 genera, were obtained in the Boysen Reservoir area. Although the specimens were for the most part rather fragmentary, they were sufficiently well preserved to establish the age of those beds as belonging to the Lost Cabin faunal zone of the lower Eocene, a fact that had not previously been demonstrated. In the material obtained is the most nearly complete skull yet found of the primitive insectivore, *Didelphodus*. Although badly crushed and not impressive to look at, it adds a number of previously unknown details to the knowledge of the cranial morphology of that form. Also the skull and jaws of *Didymictis*, a primitive carnivore a little larger than a fox, was obtained in that area. Heretofore the form was known only from upper and lower dentitions.

Nearly 125 specimens, principally insectivores, rodents, and small artiodactyls, were obtained in the Canyon Ferry Reservoir area. Most of the specimens were found in the Oligocene deposits which previously were very poorly known. The material obtained demonstrated that deposits of both lower and middle Oligocene age were present in that area. One of the Oligocene insectivores belongs to a problematical family previously unknown in deposits later than the upper Eocene. Also, it is the best-preserved specimen yet found and adds many details of the skull and dentition to the knowledge of that group. The small Oligocene mammals of that area, when compared

to those of the same age on the Plains, illustrate the principles of geographical variation quite as well as the living species.

White's laboratory activities for the year fall into two periods. The first, from October 4 to November 5, was spent at the field office at Lincoln, Nebr., preparing supplementary reports on the reservoirs visited and in identifying the osteological material obtained in archeological excavations. Also, during that period the first draft of the technical report on the physiographic studies in the Angostura area was prepared. The remaining time was spent in the division of vertebrate paleontology at the United States National Museum. In addition to the preparation of technical reports on the paleontological material obtained in the reservoir areas, six boxes of osteological material from the Missouri and Columbia Basins were identified.

White completed two technical reports representing the results of field and laboratory activities. They are: "Preliminary Analysis of the Vertebrate Fossil Fauna of the Boysen Reservoir Area," and "Endocrine Glands and Evolution No. 2: The Appearance of Large Amounts of Cement on the Teeth of Horses." Both were submitted for publication. At the close of the year he had virtually finished two other papers: "A Preliminary Appraisal of the Physiographic History of Horsehead Creek in the Vicinity of 39FA65" (with Jack T. Hughes), and "Analysis of the Vertebrate Fossil Fauna of the Canyon Ferry Reservoir Area."

Throughout the field season White enjoyed congenial relationships with members of other Government agencies and with members of educational institutions. Among those from whom material assistance was received are: Harry A. Tourtelot of the United States Geological Survey, J. LeRoy Kay of the Carnegie Museum, Mr. McQuiren, geologist for the Bureau of Reclamation at the Boysen project, and Roy Austin, Superintendent of Public Schools at Townsend, Mont. Also the work was materially expedited by the many forest rangers who placed the facilities of their stations at the convenience of the party.

As in previous years, a number of student assistants were employed as members of the various field parties. Robert L. Hall and Warren L. Wittry were with the Cooper party from July 1 to September 4 and August 14, respectively. Gordon F. McKenzie joined the same party on August 1 and remained with it until September 4. John C. Donohoe was with the White party July 1 to 31, while Ernest L. Lundelius, Jr., accompanied it from July 1 to September 4. Dorothy E. Fraser was with the Cooper party during the month of August in the capacity of a special consultant. Neil J. Isto joined the Wheeler party on June 2 and was in the field at the close of the year.

Oklahoma.—Work in Oklahoma consisted of both surveys and

excavation. At the beginning of the year David J. Wenner, Jr., field assistant, was making a reconnaissance of the area to be flooded by the Tenkiller Ferry Reservoir on the Illinois River in the eastern part of the State. That work was completed on July 27 and the party moved to the Canadian Reservoir project on the Canadian River. Reconnaissance of that area was finished on August 17, when attention was turned to the adjacent Onapa project on the North Canadian. The survey there was completed on September 3. Within the 3 basins, 104 sites were found, 38 in Tenkiller Ferry, 41 in the Canadian, and 25 in Onapa. The work in Tenkiller Ferry demonstrated that what were presumed to be mounds, actually are natural knolls on flood plains and terraces, and all the sites present are village or camp remains. Those in the other two areas are also mainly village sites representing both historic and prehistoric cultures. In passing it should be stated that the Canadian and Onapa are two of three smaller alternate projects proposed to take the place of the larger Eufaula Reservoir. The third in the group, the Gaines, still remains to be surveyed. Should the single Eufaula project eventually be carried through instead of the three smaller ones, very little additional field work will be required to determine the archeological manifestations involved. It is known that there are a number of mounds that lie outside the boundaries of the smaller reservoirs but which would fall within the maximum pool of the Eufaula. Mr. Wenner was aided in his work by William Mayer-Oakes and Robert Shalkop, student assistants.

The excavations were at the Norman site in the Fort Gibson Reservoir basin on the Grand (Neosho) River near Wagoner. Earlier work by the University of Oklahoma had shown that the extensive village and mound group located there belonged to a Spiro-type culture and raised the possibility that the flooding of the largest double mound, which had never been excavated, would represent the loss of as important information and material as had the destruction of the famous Spiro mounds in the adjacent county. When Dr. Robert E. Bell of the Department of Anthropology of the University of Oklahoma reached the site in July he found that nearly all the village area and all mounds, with the exception of the largest double unit, had been removed by the bulldozers of the construction contractor. Even the large double unit had been damaged. The western periphery had been cut away and the smaller mound had been cut down several feet. With the assistance of the Engineers Dr. Bell was able to stop the operations so that archeological work could be done. During July and the first 2 weeks in August the University of Oklahoma field session under Bell excavated portions of several house sites still surviving south of the larger mound. On

August 17, under the sponsorship of the River Basin Surveys, he began excavation of the large double mound by cutting a trench across the saddle between the two parts of the unit. The southern face of the trench was then carried forward toward the larger mound. Joseph R. Caldwell joined Bell on August 19 and they decided that neither the available time nor funds would permit the customary method of cutting forward with a continuous vertical face. Accordingly, a 10-foot trench was driven through the north-south axis of the mound to reach its base and to obtain a complete profile. The work continued until September 22. Surprisingly, the mound yielded very few specimens. Potsherds and artifacts were scarce throughout its various levels. It was learned, however, that its main portion was composed of six superimposed platforms which probably had been the placements for public buildings, although no complete post-hole patterns were discovered. The summit of the fifth stage above the base had been divided into two nearly equal areas by a single row of posts, and the entire level gave evidence of a severe conflagration in prehistoric times. Four human burials were found in the top level, but they were in such an advanced stage of decomposition that little remained to indicate their character. A number of glass beads in the same level suggests a historic contact in the final days of occupation. The results of the digging indicated that no additional work was required at the Norman site. During the course of the investigations there, however, another site was located which appears to be an important one, and it was recommended that further efforts in the Fort Gibson area be concentrated there.

Red River of the North Basin.—Between August 27 and October 29, 1948, Richard P. Wheeler, archeologist, investigated four Corps of Engineers reservoir areas in the Red River of the North Drainage Basin: the Homme Reservoir, under construction on the South Branch of the Park River, the proposed Pembina River and Tongue River Reservoirs, in northeastern North Dakota; and the proposed Orwell Reservoir, on the Ottertail River, in west-central Minnesota. In reports on those surveys, prepared at the Lincoln office of the River Basin Surveys between November 5 and 19 and issued at Washington, D. C., in December 1948, Wheeler noted the occurrence of sites in the vicinity of the Homme and Orwell Reservoirs but recorded the discovery of only one archeological site in the reservoir areas proper, an occupation site in the Pembina River Reservoir. The finding of bison bones in all four of the reservoir areas indicates that the river valleys were formerly the habitat of bison and perhaps of other large game and were possibly visited by hunting bands in prehistoric and historic times. It was recommended that rechecks be made at the Homme Reservoir, following the clearing of timber and underbrush,

and at the Pembina River and Orwell Reservoirs, at the time of the construction of the dams, in order to make sure that no archeological remains were overlooked.

Texas.—The River Basin Surveys continued to operate throughout the year from the base and headquarters supplied by the Department of Anthropology at the University of Texas, Austin, Tex. Surveys were begun and carried to completion in five Corps of Engineers reservoirs.

Robert L. Stephenson, archeologist, left Austin at the beginning of the fiscal year and went to Fort Worth where he conferred with the Engineer in Charge, Fort Worth Suboffice, Corps of Engineers, preparatory to starting surveys of four reservoir basins on the upper branches of the Trinity River.

During July he completed investigations at the Benbrook Reservoir on the Clear Fork of the Trinity River in Tarrant County and at the Grapevine Reservoir on Denton Creek in Tarrant and Denton Counties. No sites were found in the Benbrook basin and only 10, none of which require further investigation, were noted at Grapevine. In addition he made a 2-day reconnaissance in the areas of the Lavon Reservoir on the East Fork of the Trinity River and Garza-Little Elm Reservoir on the Elm Fork of the same stream. On the latter trip R. K. Harris, Rex Housewright, and Lester Wilson, of the Dallas Archeological Society, took him to sites that they had previously located in the two areas.

On August 1, Mr. Stephenson accompanied Drs. Gustav A. Cooper and A. R. Loeblich, Jr., of the United States National Museum, and Robert Stark of Grapevine, Tex., to the vicinity of Bridgeport, Wise County, to collect invertebrate fossils. He also visited the Whitney Reservoir on the Brazos River, Hill County, and collected mollusks, needed to check previous identifications, from several archeological sites. From there he went to the Texarkana Reservoir on the Sulphur River, Bowie County, for the purpose of gathering information regarding the dates of construction and of determining the necessary time and extent of a survey for that basin. During the month he also completed an intensive survey of the Garza-Little Elm basin where he noted 27 sites, 7 of which were recommended for further examination, and started investigations at the Lavon project. The latter continued until September 17 and during the progress of the work he made test excavations at two sites. The survey located 25 sites, of which 8 have been recommended for more intensive investigations. Both in the excavations and the survey he was greatly assisted by the members of the Dallas Archeological Society and on September 10 spoke before a meeting of that organization. On September 18 he started a survey of the San Angelo Reservoir area on the North Concho

River in Tom Greene County, which was finished on October 10. Only 13 small sites were located there, and as similar material is available elsewhere no further work was recommended for the basin.

Except for several short trips, Mr. Stephenson spent the remainder of the fiscal year at the headquarters in Austin analyzing the material collected and preparing reports on the summer's surveys. He went to Lincoln, Nebr., in November for the purpose of studying the field and laboratory methods being used by the Missouri Basin group and while there attended sessions of the Sixth Conference for Plains Archeology and was appointed to the Committee on Archeological Nomenclature. From January 2 to 7, he revisited the upper Trinity River area to investigate reports of additional material having been found there. Papers prepared by Stephenson during the months in the laboratory are: "Archeological Survey of McGee Bend Reservoir," which was published in volume 19 of the Bulletin of the Texas Archeological and Paleontological Society; "Archeological Survey of the Lavon and Garza-Little Elm Reservoirs," to be published in volume 20 of the same journal; "A Note on Some Large Pits in Certain Sites near Dallas, Texas," printed in *American Antiquity*, vol. 15, No. 1; a revision of his earlier report on the Whitney Reservoir which was mimeographed and distributed by the Washington office in April; and preliminary appraisals on the Benbrook, Grapevine, Garza-Little Elm, and San Angelo surveys. He also wrote a summary statement covering the results of the River Basin Surveys from their inception in 1947 to June 30, 1949, and prepared a summary and table of the culture sequences and their relationships in the Texas area as they had been worked out up to that date.

Results of the year's investigations established a number of facts. In the survey of the Garza-Little Elm basin it was found that the remains include key sites for the determination of the cultural sequences in the area east of that known to have been inhabited by groups classified as the Henrietta Focus and west of the known Caddoan area. Similar sites have not been observed elsewhere. Very little is known of the cultural sequences involved in the area drained by the three forks of the Trinity River. The eight sites in the Lavon basin recommended for more intensive examination are believed to hold the answer to the problem of developments in the western border of the Caddo area. At least one new culture remains to be defined and described from the excavation of those sites. Furthermore, the material from them should shed much light on the interrelation between the cultures represented there and those to the east and west.

Cooperating institutions.—Numerous State and local institutions cooperated with the River Basin Surveys throughout the year and made a definite contribution to the progress of the program. The

Universities of Nebraska, Oklahoma, Oregon, and Texas provided space for field offices and laboratories for regular units of the Surveys, while the Universities of Denver, Colorado, and California, and Western State College of Colorado supplied temporary bases of operations for specific projects. The Universities of California, Oklahoma, Oregon, and Washington joined forces with the Surveys for some reconnaissance work and for the excavations at the Fort Gibson, McNary, and O'Sullivan Reservoirs. In a number of cases responsibility for units in the survey and excavation program was assumed by State and local institutions.

The Museum of Northern Arizona and the University of Arizona did some preliminary survey work, while the San Diego Museum of Man conducted surveys and did some digging in the area of the Davis Dam on the Colorado River between Arizona and Nevada. The University of Arkansas engaged in both reconnaissance and excavations in the area of Bull Shoals Reservoir in that State. The California Archeological Survey of the University of California conducted excavations at the Pine Flat and Isabella Reservoirs, while the Archeological Surveys Association of Southern California carried on reconnaissance work in that part of the State. The Florida Park Service surveyed the section in northern Florida that will be affected by the Jim Woodruff Dam on the Apalachicola River near Chattahooche and did some digging in a number of sites. The University of Georgia continued its surveys along the Chattahooche and Flint Rivers and conducted excavations at one site in the Allatoona Reservoir on the Etowah River. In Illinois the University of Illinois, the University of Chicago, and the Illinois State Museum furnished information about the extent and character of sites in the basins of 15 reservoir projects proposed for the Illinois River drainage. The Indiana Historical Bureau carried on surveys and did some excavating not only at proposed Federal projects, but at those under State construction as well.

The Museum of Natural History of the University of Kansas made excavations at Kanopolis Reservoir in July and August of 1948 in sites where the rising waters of the reservoir were already encroaching upon the remains. The results of that work were reported on by Dr. Carlyle S. Smith in an article, "Archeological Investigations in Ellsworth and Rice Counties, Kansas," which appeared in *American Antiquity*, vol. 14, No. 4, April 1949. In June of 1949 the same institution was beginning investigations at the Glen Elder Reservoir with other work planned for the Woodston, Webster, and Cedar Bluff projects in the same region of the Solomon River drainage. In Kentucky the University continued its program of excavations at the Wolf Creek Reservoir on the Cumberland River and at the Dewey

Reservoir on Johns Creek. The University of Missouri and the Missouri Archeological Society again cooperated in making surveys in a number of reservoirs and in excavating sites in the Missouri portion of the Bull Shoals Reservoir and in the Clearwater and Pomme de Terre basins on the Black and Pomme de Terre Rivers, respectively. At the end of the year Montana State University was starting field work at the Canyon Ferry Reservoir on the Missouri River near Townsend, Mont.

The Laboratory of Anthropology of the University of Nebraska was excavating in sites at the Harlan County Reservoir on the Republican River in the southern part of the State at the start of the fiscal year and had returned to the same locality for further activities in June 1949. The work done during the summer of 1948 was described by Dr. John L. Champe, in a report, "White Cat Village," published in *American Antiquity*, vol. 14, No. 4, April 1949. The Nebraska State Historical Society excavated a number of sites in the Medicine Creek Reservoir area in the early months of the year and in June had a party digging in the Mullen Reservoir area on the Middle Loup River in the north-central part of the State. The University of Nebraska State Museum continued its paleontological and archeological investigations in the Harlan County and Medicine Creek Reservoir areas. One site in the Medicine Creek basin that proved of particular interest because of its implications of considerable antiquity was described in an article, "The Frontier Culture Complex, a Preliminary Report on a Prehistoric Hunter's Camp in Southwestern Nebraska," written by Preston Holder and Joyce Wike and printed in *American Antiquity*, vol. 14, No. 4, April 1949.

The University of North Dakota and the North Dakota Historical Society cooperated in excavations at the Baldhill Reservoir in the eastern part of the State in the summer of 1948, and toward the close of the fiscal year were preparing for intensive survey work in the Garrison Reservoir on the Missouri River near Sanish, N. Dak. The results of the previous summer's work were discussed by Dr. Gordon W. Hewes in "Burial Mounds in the Baldhill Area, North Dakota," which appeared in the April 1949 issue of *American Antiquity*, vol. 14, No. 4. The Ohio State Museum did some survey and excavation work. The University of Oklahoma, as previously mentioned, did some digging at the Fort Gibson Reservoir and made independent surveys in other areas. The University of Utah assumed responsibility for surveys at a number of projects in the southwestern corner of that State but at the close of the year had not yet started field work. In Wisconsin, Beloit College made surveys and did some digging in the Black River project.

The various cooperating organizations send progress and completed reports to the River Basin Surveys so that the results of their work may be coordinated with those for the over-all program. In this way the information obtained by them becomes a part of the general record of the River Basin Surveys.

EDITORIAL WORK AND PUBLICATIONS

There were issued one Annual Report and two Publications of the Institute of Social Anthropology as listed below:

Sixty-fifth Annual Report of the Bureau of American Ethnology, 1947-1948. 32 pp.

Institute of Social Anthropology Publ. No. 8. Sierra Popoluca speech, by Mary L. Foster and George M. Foster. 45 pp.

Institute of Social Anthropology Publ. No. 9. The Terena and the Caduveo of southern Mato Grosso, Brazil, by Kalervo Oberg. 72 pp., 24 pls., 4 maps, 2 charts.

The following publications were in press at the close of the fiscal year:

Bulletin 143. Handbook of South American Indians. Julian H. Steward editor. Volume 5, The comparative ethnology of South American Indians. Volume 6, Physical anthropology, linguistics, and cultural geography of South American Indians.

Miscellaneous publications. List of publications of the Bureau of American Ethnology, with index to authors and titles. Revised to July 30, 1949.

Bulletin 144. The Northern and Central Nootkan tribes, by Philip Drucker.

Institute of Social Anthropology Publ. No. 10. Nomads of the long bow: The Siriono of eastern Brazil, by Allan R. Holmberg.

Institute of Social Anthropology Publ. No. 11. Quiroga: A Mexican Municipio, by Donald D. Brand.

Institute of Social Anthropology Publ. No. 12. Cruz das Almas: A Brazilian village, by Donald Pierson.

Publications distributed totaled 19,660, as compared with 25,037 for the fiscal year 1948.

LIBRARY

Accessions in the library totaled 112 volumes, bringing the total accession record as of June 30, 1949, to 34,719.

ILLUSTRATIONS

During the entire year the work of restoration on the valuable collection of old Indian photographs was continued. Approximately 150 restorations were completed.

The remainder of the time of the illustrator and of his assistant was spent on the regular work of preparation of illustrations and maps for Bureau publications.

ARCHIVES

Research workers and students continued to use the manuscript material and the archives both through personal visits for consultation and by correspondence. A number of manuscripts on the various Iroquoian tribes were loaned to the Library of the American Philosophical Society, Philadelphia, for use of students and research workers in that field. The major task of carding the more important Indian vocabularies has been begun with Indian and English divisions for each. These vocabularies are being arranged so that they can be expanded as new material arrives. Many of the Iroquoian vocabularies collected by James Mooney, Erminnie Smith, and J. N. B. Hewitt, as well as a Natchez vocabulary collected by A. S. Gatchet, have been carded.

Some 5,000 prints and negatives, including both black and white and color, have been made during the year for various purposes. Considerable use was made during the fiscal year of the photographic collections as illustrations for both scientific and commercial purposes. The Walt Disney Studio and Metro-Goldwyn-Mayer have consulted the photographic files for authentic material in making motion pictures dealing with Indian subjects.

COLLECTIONS

Acc. No.	
-----	1 lot of fossils collected by Dr. Theodore E. White, Ernest L. Lundelius, and John C. Donohoe, from 6 locations in the Boysen Reservoir area, Wyoming. River Basin Surveys.
-----	1 lot of fossils collected by Theodore E. White, Ernest L. Lundelius, and John C. Donohoe, from 5 localities within the Canyon Ferry Reservoir area, near Helena, Mont. River Basin Surveys.
181, 218	1 lot of earthenware vessels and other artifacts collected by Dr. Gordon R. Willey in Virú Valley, Department of La Libertad, Perú.
182, 450	24 hand-made silver brooches from the Grand River Indians at Caledonia, Ontario, Canada. Bought by the Bureau from Ephraim Schuyler, Oneida, Wis.
182, 928	1 tobacco pouch and pipe of White Calf, a former chief of the Blackfoot Indians. Bequeathed by Florence Merriam Bailey to the Bureau.
182, 986	1 lot of potsherds collected from Pissaisec, an Algonquian village, near Leedstown, Va., by the late David I. Bushnell, Jr.
179, 533	1 lot of archeological material collected at the Hodges site on Plaza Larga Creek, Quay County, N. Mex., in August 1947 by Herbert W. Dicks as a project of the River Basin Surveys.
179, 773	Indian skeleton from Lake Spring site, Savannah River, Georgia. River Basin Surveys.
180, 455	1 lot of stone artifacts and rejectage collected by Sheldon Judson at various sites in Clay County, N. Mex.

Acc. No.

- 1 lot of stone artifacts and potsherds collected by Drs. M. W. Stirling and Gordon R. Willey from a prehistoric shell mound near Monagrillo, Herrera Province, Republic of Panamá, during the 1948 Smithsonian Institution-National Geographic Society Expedition to Panamá.

MISCELLANEOUS

During the year Miss Frances Densmore, Dr. John R. Swanton, and Dr. Antonio J. Waring, Jr., continued as collaborators of the Bureau of American Ethnology.

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the American Indians of both continents, past and present. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Respectfully submitted.

M. W. STIRLING, *Director.*

Dr. A. WETMORE,

Secretary, Smithsonian Institution.



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Sixty-seventh Annual Report
of the
**BUREAU OF AMERICAN
ETHNOLOGY**

1949-1950

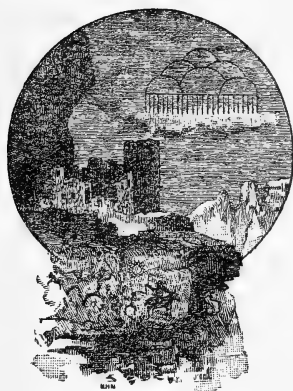


SMITHSONIAN INSTITUTION
WASHINGTON
D. C.

SIXTY-SEVENTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1949-1950



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1951

BUREAU OF AMERICAN ETHNOLOGY

June 30, 1950

Director.—MATTHEW W. STIRLING.

Associate Director.—FRANK H. H. ROBERTS, JR.

Senior ethnologists.—H. B. COLLINS, JR., JOHN P. HARRINGTON, W. N. FENTON.

Senior anthropologist.—PETER DRUCKER (on military leave).

Collaborators.—FRANCES DENSMORE, JOHN R. SWANTON, A. J. WARING, JR.

Editor.—M. HELEN PALMER.

Librarian.—MIRIAM B. KETCHUM.

Scientific illustrator.—E. G. SCHUMACHER.

INSTITUTE OF SOCIAL ANTHROPOLOGY

Director.—G. M. FOSTER, JR.¹

Acting Director.—GORDON R. WILLEY.

Anthropologists.—*Brazilian office:* DONALD PIERSON, KALERVO OBERG; *Mexican office:* ISABEL T. KELLY; *Peruvian office:* OZZIE G. SIMMONS.

RIVER BASIN SURVEYS

Director.—FRANK H. H. ROBERTS, JR.

Archeologists.—G. ELLIS BURCAW, JOSEPH R. CALDWELL, GEORGE A. CHENEY, PAUL L. COOPER, ROBERT B. CUMMING, JR., RICHARD D. DAUGHERTY, WALTER D. ENGER, JR., FRANKLIN FENENGA, JACK T. HUGHES, EDWARD B. JELKS, DONALD J. LEHMER, CARL F. MILLER, HOMER DOUGLAS OSBORNE, ROBERT L. SHALKOP, JOEL L. SHINER, RALPH S. SOLECKI, ROBERT L. STEPHENSON, SAMUEL J. TOBIN, RICHARD PAGE WHEELER.

Paleontologist.—THEODORE E. WHITE.

¹ In absentia as of June 30, 1950.

SIXTY-SEVENTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, *Director*

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1950, conducted in accordance with the Act of Congress of April 10, 1928, as amended August 22, 1949, which provides for continuing "independently or in cooperation anthropological researches among the American Indians and the natives of lands under the jurisdiction or protection of the United States and the excavation and preservation of archeologic remains."

SYSTEMATIC RESEARCHES

Dr. M. W. Stirling, Director of the Bureau, devoted most of his time during the fiscal year to administrative affairs of the Bureau. He also continued studies on the archeological collections made in Panamá during the winter of 1948-49, particularly on the ceramic collection from the site of Utivé in the Province of Panamá. With the exception of a few brief trips for the purpose of attending scientific meetings or giving lectures, the entire year was spent in Washington.

Dr. Frank H. H. Roberts, Jr., Associate Director of the Bureau and Director of the River Basin Surveys, spent most of the fiscal year in administering and directing the River Basin Surveys. In September he attended the Twenty-ninth International Congress of Americanists where he gave an illustrated talk on the program and work of the River Basin Surveys. Early in October he participated in the annual meeting of the National Council for Historic Sites and Buildings at Williamsburg, Va. From Williamsburg he went to the Joshua S. and John E. Williamson farm near Dinwiddie to examine an archeological site where considerable material attributable to the eastern variant of the Folsom culture had been found. That particular site is one of the most extensive of its kind thus far noted in the East, and, if excavated, should provide valuable information.

Later in October Dr. Roberts visited the Missouri Basin headquarters at Lincoln, Nebr., and, accompanied by Paul L. Cooper, proceeded to the Angostura Reservoir in South Dakota where a series of excavations was under way. After spending several days with the field party, they went to Wyoming to examine the site for

the proposed Edgemont Reservoir on the Cheyenne River. From there they went to Fort Collins, Colo., where the Horsetooth Reservoir is under construction, and examined paleontological and archeological specimens uncovered in the process of the work. Returning to Washington early in November, Dr. Roberts went to Richmond, Va., and gave the principal address before the annual meeting of the Eastern States Archeological Federation. The subject of his talk was the progress and results of the River Basin program.

Late in November and early in December Dr. Roberts was again in Lincoln, Nebr., where he assisted in making plans for reorganizing the laboratory and field headquarters. While there he took part in the Seventh Conference for Plains Archeology and presided over one of the symposia dealing with the problems of Plains archeology.

In February and March Dr. Roberts visited the Departments of Anthropology at the University of Utah, Salt Lake City; the University of Washington, Seattle; the University of Oregon, Eugene; and the University of California, Berkeley. He discussed the plans for field work during the coming season and made arrangements for student help and field assistants for the River Basin Surveys parties. While at Eugene he also inspected the field headquarters and laboratory for the Columbia Basin project and assisted Joel L. Shiner, the acting field director, in making plans for the summer season. En route back to Washington, Dr. Roberts visited the Department of Anthropology at the University of Denver, where he talked with Arnold M. Withers about the cooperation of that institution in the program in Colorado. From there he proceeded to Lincoln to plan for the summer's work in that area. At that time he also spoke on the River Basin program before the annual meeting of the Nebraska State Press Association at Omaha.

In May Dr. Roberts visited the Fort Gibson Reservoir in Oklahoma and discussed plans for additional projects with the District Engineer at Tulsa. At Norman, Okla., he examined materials which had been salvaged from sites at the Fort Gibson Reservoir by a field party from the University of Oklahoma and also attended sessions of the annual meeting of the Society for American Archaeology. From Oklahoma Dr. Roberts went to Texas, visiting the Garza-Little Elm, Lavon, and Belton Reservoir projects. He also spent several days at the Whitney Reservoir where one of the River Basin Surveys parties under Robert L. Stephenson was excavating a series of Indian sites. From the Whitney Reservoir he went to Austin to inspect the field headquarters and laboratory located at the University of Texas.

During the period July 1 through October 24, 1949, Dr. John P. Harrington continued the study of the grammar of the Abnaki language at Old Town, Maine. The Abnaki language is the only one of

the Indian languages of New England that is still spoken. Abnaki forms throw considerable light on the closely related, extinct Massachusetts language in which the famous Eliot Indian Bible is written. The earliest vocabulary, or vocabularies, of the Abnaki language resulted from the work of French missionaries in the Kennebec Valley, but the work has been lost. The maps and writings of Capt. John Smith, Champlain, and Lescarbot carry a number of Abnaki place names. The earliest extensive Abnaki vocabulary is that attributed to Capt. George Weymouth and was probably taken down by him in 1605 from Abnaki Indians whom he captured near the St. George Islands, off the eastern end of Penobscot Bay, and took to England. This vocabulary was first printed in 1625. In 1691, 86 years after the Weymouth Abnaki vocabulary had been made, a young French missionary priest named Sebastian Rasles arrived in Canada and compiled his vast French-Abnaki dictionary. This dictionary was captured by the English at the battle of Norridgewock in 1724 and was first printed in 1833.

On February 9, 1950, Dr. Harrington proceeded to Mérida, Yucatán, for the purpose of studying the Maya language. A tape recorder was taken along and 10 half-hour recordings of stories told in the Maya language were obtained. Dr. Harrington returned to Washington on April 11, bringing with him a large quantity of linguistic material.

At the invitation of the Canadian Government, Dr. Henry B. Collins, Jr., conducted archeological investigations on Cornwallis Island in the northern part of the Canadian Arctic Archipelago. Excavations were made at four prehistoric Eskimo village sites at Resolute Bay on the south side of the Island. Dr. Collins and his assistant, Jean P. Michea, reached Resolute by plane on May 27 after brief stops at Frobisher Bay on Baffin Island, and at Thule in northwest Greenland. The work continued until August 23, 1949. The numerous house ruins on Cornwallis and neighboring islands show that this now uninhabited region once supported a sizable Eskimo population. The Cornwallis Island structures—built of stones, whalebones, and turf—proved to have been made by the Thule Eskimos, a prehistoric group that originated in Alaska and later spread eastward to Canada and Greenland. A large collection of artifacts was obtained which, after study, will be divided between the Smithsonian and the National Museum of Canada, joint sponsors of the work. As the natural history of Cornwallis Island is so little known, an attempt was made to collect representative samples of fossils, minerals, vascular plants, mosses and lichens, insects, and fresh-water invertebrates.

Dr. Collins organized a symposium on Arctic anthropology as part of the program for the Twenty-ninth International Congress of Americanists held in New York in September 1949, the participants being anthropologists, archeologists, and linguists from the United States, Canada, and Denmark who have specialized in Eskimo research.

Dr. Collins continued to serve as chairman of the directing committee of the Bibliography of Arctic Literature and the Roster of Arctic Specialists, two projects that the Arctic Institute of North America is carrying out under contract with the Office of Naval Research for the Departments of the Army, Navy, and Air Force, and the Defense Research Board of Canada. He also participated in organizing the forthcoming Alaska Science Conference to be held under the auspices of the National Research Council in November 1950, serving as a member of the steering committee and chairman of the social sciences division.

During August Dr. William N. Fenton spent 2 weeks studying the archives of the Ontario County Historical Society at Canandaigua, N. Y. In August and September he made tape recordings in the field at Tonawanda and Allegany Seneca reservations. In October he completed a survey of Iroquois materials in the Massachusetts Archives at the State House, in Boston, and found additional Pickering letters in Salem. In December, 34 volumes of the printed journals of the Continental Congress (1774-89) were surveyed and extracted for Iroquois material. During March-May Dr. Fenton was detailed to assist the Department of Justice in the preparation of a case for the Court of Claims concerning Indian lands. In June he was detailed to the Office of Indian Affairs on problems of tribal organization among the Pueblos, the Klamath Indians of California, and the Blackfeet of Montana. Dr. Fenton was in the field on this assignment at the close of the fiscal year.

In September Dr. Gordon R. Willey, anthropologist of the Bureau of American Ethnology, assumed the temporary duties of Acting Director of the Institute of Social Anthropology for the remainder of the fiscal year. However, research under Bureau auspices continued, and preparation of various manuscripts was carried forward. He continued the preparation of the manuscript "Prehistoric Settlement Patterns in the Virú Valley of Northern Peru." Subsequently he began studies on collections from the Canaveral and Ormond Beach Mounds in east Florida, completing these studies in May. The month of June was then devoted to rewriting and revising a manuscript, "Early Ancon and Early Supé: Chavin Horizon Sites of the Central Coast of Perú." This report, approximating 125,000 words,

was written in collaboration with Dr. John M. Corbett and will be released by the Department of Anthropology, Columbia University.

RIVER BASIN SURVEYS

(Report prepared by FRANK H. H. ROBERTS, Jr.)

The River Basin Surveys were organized as a unit of the Bureau of American Ethnology in the fall of 1945. Their purpose was to carry into effect a memorandum of understanding between the National Park Service and the Smithsonian Institution, which provides for the salvage of archeological and paleontological remains occurring in areas to be flooded or otherwise disturbed by the program of the Federal Government for flood-control, irrigation, hydroelectric, and navigation projects. The first actual field work was started in July 1946 and has continued since that date. Throughout the period of operations, the investigations have been conducted in cooperation with the National Park Service and the Bureau of Reclamation of the Department of the Interior, the Corps of Engineers, Department of the Army, and a number of nongovernmental institutions scattered throughout various States. During the past fiscal year the work was financed by a transfer of \$215,886 to the Smithsonian Institution by the National Park Service, derived in part from the National Park Service and in part from the Bureau of Reclamation. The money from the National Park Service was for use in areas outside of the Missouri Basin, while that from the Bureau of Reclamation was for work in the latter area. Because of the fact that the appropriations for fiscal 1950 were made available so late in the summer, the necessary funds could not be transferred to the Smithsonian Institution until the period for field work had passed in many areas. Consequently, less was accomplished than in previous years.

Activities during the year included reconnaissance or surveys for the purpose of locating archeological sites or paleontological deposits that will be involved in construction work or are in locations that eventually will be flooded, and in the excavation of sites located by previous surveys. The survey work covered 26 reservoirs located in 8 States and scattered over 5 river basins. Excavations were completed or under way at the end of the fiscal year in 13 reservoir areas in 9 States. Three of the excavation projects were in areas where digging had been done in previous years, while the remainder were new undertakings. At the close of the fiscal year, the total of the reservoir areas, where surveys had been made or excavations carried on since the beginning of the program in July 1946, was 180 located in 23 States. Archeological sites located and recorded have reached a total of 2,260, of which 484 have been recommended for excavation or additional testing. During

the year preliminary appraisal reports were completed for all the reservoirs surveyed, and 23 reports were mimeographed for limited distribution to the cooperating agencies. This makes a total of 120 such reports issued since the start of the program. The excavations made during fiscal 1950 bring the total for areas where such work has been done to 21. Technical reports on the results of some of that work have appeared in scientific journals, while the completed manuscripts on others are now awaiting publication. Paleontological surveys have been made in 100 reservoirs, 56 being those where archeological work has also been done. The remaining 44 will eventually be visited by archeological parties. Including the reservoir areas where archeological work remains to be done, the over-all total of reservoirs visited is 224.

The distribution by States of all the reservoirs investigated for archeological remains as of June 30, 1950, is as follows: California, 20; Colorado, 23; Georgia, 3; Idaho, 10; Illinois, 2; Iowa, 3; Kansas, 6; Louisiana, 1; Minnesota, 1; Montana, 5; Nebraska, 16; New Mexico, 1; North Dakota, 13; Ohio, 2; Oklahoma, 5; Oregon, 24; South Dakota, 9; Tennessee, 1; Texas, 13; Virginia, 1; Washington, 9; West Virginia, 2; Wyoming, 11. Excavations have thus far been made in: California, 1; Colorado, 1; Georgia, 1; Kansas, 1; Montana, 1; Nebraska, 1; New Mexico, 1; North Dakota, 2; Oklahoma, 1; Oregon, 1; South Dakota, 2; Texas, 3; Virginia, 1; Washington, 3; and Wyoming, 1.

Throughout the fiscal year the River Basin Surveys received full cooperation from the National Park Service, the Bureau of Reclamation, and the Corps of Engineers, as well as various State agencies. At some of the projects guides and transportation were furnished to staff men in the field. At others, office and laboratory space was provided, and in a number of cases labor and mechanical equipment were made available by the construction agency. The assistance provided made possible a greater accomplishment than would otherwise have been possible had it been necessary for the River Basin Surveys men to rely on their own resources. The National Park Service was primarily responsible for procuring the funds necessary for carrying on the program and also served as the liaison between the Smithsonian Institution and the other governmental agencies, not only in Washington but through its several regional offices as well.

General supervision and direction of the work in California, Texas, Louisiana, Georgia, Ohio, and Virginia were from the main office in Washington. The Missouri Basin program was carried on under the direction of a field headquarters and laboratory at Lincoln, Nebr., and the activities in the Columbia Basin were supervised by a field office located at Eugene, Oreg.

Washington office.—The main headquarters of the River Basin Surveys continued under the direction of Dr. Frank H. H. Roberts, Jr., throughout the year. Joseph R. Caldwell, Carl F. Miller, and Ralph S. Solecki, archeologists, were based at that office, although Mr. Solecki did not work full time for the Surveys.

Mr. Caldwell and Mr. Miller left Washington on July 7 for Cartersville, Ga., where they started an excavation program within the area to be flooded by the Allatoona Reservoir. Mr. Miller completed part of the project early in December and returned to Washington, while Mr. Caldwell continued digging until early in February, when he went to Athens, Ga., to establish a field laboratory and study the material obtained during the excavations. Facilities for the laboratory at Athens were provided by the University of Georgia. During the first week in August Mr. Miller was temporarily detached from the Allatoona investigations and sent to Louisiana to make a preliminary reconnaissance at the Bayou Bodcau Reservoir. Except for a week in May when he visited archeological sites at Chester's Island and Floyd's Island in the Okefenokee Swamp, Mr. Caldwell spent the remainder of the fiscal year at Athens preparing his report, "A Preliminary Report on Excavations in the Allatoona Reservoir," which was published in *Early Georgia*, vol. 1, No. 1, and a manuscript pertaining to the Rembert Mounds on the Savannah River, which will be published in the first volume of the River Basin Surveys Papers.

After his return to Washington Mr. Miller devoted most of his time to a study of the material and information he had obtained at the Allatoona Reservoir and in the preparation of his portion of the report on the project. He also served as assistant to the Director, and during such times as the latter was absent from the office took charge of the operations. In June he went to the Buggs Island Reservoir, on the Roanoke River in southern Virginia, to excavate a large village and burial site that was being destroyed by construction within the area. During the year Mr. Miller completed and published five manuscripts on his work in the Southeast.

Mr. Solecki, who had been transferred to the Smithsonian Institution's staff the previous May to conduct an archeological reconnaissance in northern Alaska, returned to duty with the River Basin Surveys on September 11. In November he proceeded to Ohio, where he made a brief reconnaissance of the proposed Deer Creek and Paint Creek Reservoirs in the Scioto Reservoir basin near Chillicothe. During the remainder of the fiscal year he prepared a detailed report on the excavation of the Natrium Mound, 10 miles north of New Martinsville, W. Va., which he had dug during the winter of 1948-49.

California.—In May, Albert Mohr and J. Arthur Freed, field as-

sistants, made surveys of the Burns, Bear, and Owens Reservoirs of the Merced group, in the San Joaquin Valley. Nineteen sites were located in the three projects, but as all of them are of little significance no additional work has been recommended for them. In June, Mohr and Freed made a survey at the Cachuma Reservoir on the Santa Ynez River, near Santa Barbara. They located 18 sites and at the end of the fiscal year Mohr was making preparations to dig a series of test trenches in two of them.

Franklin Fenenga joined the River Basin Surveys as archeologist on June 19 and initiated a series of excavations at the Terminus Reservoir on the Kaweah River in the Central Valley. That area is particularly important because it was at the boundary of the territories of the Wikchamni division of the Yokuts of the San Joaquin Valley and of the Balwisha group of the Mono Indians. The archeological materials from the sites should provide important information on the problem of cultural contact and diffusion between the different tribes.

Columbia Basin.—Work in the Columbia Basin was continued under the direction of the field headquarters at Eugene, Oreg., where the University of Oregon provided laboratory and office space. Douglas Osborne, acting field director, was in charge of the program in that area until he resigned on September 3 to accept a position with the University of Washington. Joel L. Shiner was appointed to succeed him and continued as acting field director throughout the remainder of the year.

During August excavations were carried on in the McNary Reservoir area, with Washington State College cooperating in the project. Eight sites were tested or excavated on the south side of the Columbia River between Umatilla Rapids and Techumtas Island, and in addition further work was done at one of the sites excavated during the previous fiscal year. Survey reports had indicated that at two of the locations there probably were remains beneath a layer of volcanic ash. Digging there, however, failed to produce any evidence for such an occupation. Information from other sites investigated demonstrated that there were at least two cultural horizons along that portion of the river. The data seem to indicate that the older inhabitants made most of their implements of basalt while the later ones used chalcedony for the most part. The economy of the two groups appears to have been basically the same, although the earlier was less complex than the later. This is indicated by greater dependency on shellfish and a tendency toward sporadic occupation and a wandering life.

During September Charles C. Case, Jr., and Robert C. Salisbury, field assistants, surveyed 11 proposed reservoirs in the Willamette

Valley, viz, Dexter, Hills Creek, Cougar, Blue River, Gate Creek, Green Peter, Cascadia, Wiley Creek, Holly, Falls Creek, and White Bridge. The Big Cliff, which had been surveyed by Osborne the previous spring, was revisited. Probably because of the extreme steepness of the terrain and the dense cover of timber, nothing of archeological interest was found. It seems likely that the small tributary canyons in which those reservoirs will be located were never used by Indians except for temporary hunting and fishing grounds.

From the Willamette area, Case and Salisbury proceeded to the Heise-Roberts project on the Snake River in southeastern Idaho. That project consists mainly of bank-control work and when completed will not flood any of the adjacent area. Careful examination of the terrain to be disturbed by the construction work failed to reveal any archeological remains, and so further work at that location will not be necessary. From there the survey team went to the Crow Creek Reservoir near the Idaho-Wyoming border. Careful search of the area to be flooded by that project failed to reveal any archeological sites, and no further investigations will be required. From Crow Creek, Case and Salisbury returned to the Post Reservoir, which will be on the Crooked River, 10 miles east of the town of Post, Oreg. That district was occupied at one time by small bands of the northern Paiute, and since their economy was based on hunting and gathering, they spent little time in any one spot. Consequently, only three small camp sites were found in the area that will be flooded. At all three the archeological materials were found to occur only on the surface, and no further work has been recommended for that reservoir.

During the fall and winter months Shiner processed the materials from the McNary excavations and prepared the preliminary appraisal reports on the results of the surveys. In collaboration with Douglas Osborne, a preliminary report was written, giving the results of the excavation program in the McNary Reservoir. In February, Mr. Shiner, with a party of students from the University of Oregon, excavated a small cave east of The Dalles where the relocation of a highway was destroying archeological material. This project was in cooperation with the University of Oregon, which provided the student labor and assumed all the expenses of the project. An interesting series of artifacts was obtained, showing a sequence of types for the area.

In the early part of June Mr. Shiner made an inspection trip to the Cascade Reservoir on the Payette River, Idaho, to determine the condition of an archeological site where excavations were planned. On his arrival there he found that the water in the reservoir had risen

much more rapidly than contemplated and that there was no possibility for archeological work. From the Cascade Reservoir he returned to the McNary Reservoir to inspect the sites where work was to be done during the summer field season.

Richard Daugherty joined the River Basin Surveys staff as archeologist on June 12 and proceeded to the O'Sullivan Reservoir, near Moses Lake, Wash. Excavations were carried on at the O'Sullivan Reservoir in the summer of 1948 by Mr. Daugherty and the investigations this year were a continuation of the previous program. Daugherty began work in a village site and at the close of the fiscal year had excavated the remains of several pit houses and accompanying midden deposits.

Douglas Osborne rejoined the River Basin Surveys on June 15 as a consulting archeologist and took charge of the general excavation program in the Columbia Basin. He proceeded with George Cheney and S. J. Tobin, who joined the Surveys on June 16 as archeologists, and their parties to the Chief Joseph and Equalizing Reservoirs in Washington. Cheney began work at the Chief Joseph Reservoir on June 19 and from then until the close of the fiscal year was occupied in the excavation of village sites. Tobin's party at the Equalizing Reservoir began the excavation of a large cave on the same date. The cave, although its floor was littered with huge blocks that had fallen from the ceiling, gave evidence of considerable occupation, and numerous specimens of netting, cordage, basketry, and other perishable material were found there. Osborne returned to Eugene, and then proceeded with a party to the McNary Reservoir, where he began a series of excavations in sites lying farther upstream from those investigated during previous seasons. At the close of the fiscal year his party was busy digging house pits and midden deposits.

A survey party consisting of George Coale, Stewart Peck, and Charles Farrell began a reconnaissance of the John Day Reservoir on the Columbia River June 27 and at the close of the fiscal year had located a number of important sites.

Georgia.—The bulk of the work done in Georgia was at the Allatoona Reservoir on the Etowah River, near Cartersville. During the period from July to February, Joseph R. Caldwell excavated 6 sites and tested 10 others. From July to December, Carl F. Miller excavated 5 sites and tested 9 others. As a result of the investigations, it is now possible to outline a new sequence of cultural stages in the Etowah River area. At least 10, and probably 11, different periods were identified, extending from the historic Cherokee of about 1755 back to a pre-pottery period when the people depended for the most part on hunting and food gathering for their sustenance. The various periods as outlined on the basis of the investigations have been named

Galt, which is that of the historic Cherokee; Brewster and Lamar, which probably represent Creek occupation; Savannah and Etowah, which pertain to the same basic Muskogean stock but have not been identified as to the specific tribes; and the Woodstock period, which has not yet been correlated with any specific peoples but which is significant because it was characterized by a fortified village having circular palisades with towers and is the first where there is evidence for the growing of corn. The preceding period has been designated the Cartersville and is identified by a distinctive type of stamped pottery decoration and indications that the people had become at least semisedentary. The next preceding period was one represented by a site excavated by Mr. Miller but was not found by Mr. Caldwell, who did not include it in his sequence. Mr. Miller has tentatively designated the period as the Acworth. It was represented by the remains of a village containing some 60 round structures of varying sizes. Definite indications of Hopewellian influences were found in this horizon. The pottery was a plain, well-polished ware that preceded the introduction of stamped wares in the area. The next period recognized by both Caldwell and Miller is one designated the Kellogg. It was characterized by a semisedentary hunting and gathering culture. There was great use of storage pits, and a variety of acorns and nuts were recovered from them. Apparently it was during this period that the bow and arrow appeared in the Allatoona region. Antedating the Kellogg was a period called Stallings, which is represented only by scattered finds of potsherds from a fiber-tempered pottery. The oldest of the sequence, which tentatively has been designated pre-pottery, preceded the Stallings. The pre-pottery stage may represent several periods and cover a long duration of time. During that stage of the occupation of the area, the people had no pottery, no pipes, no agriculture, and possibly no houses. At least no evidence was found indicating any type of structure. The economy was basically hunting and gathering, and the chief weapon probably was a javelin hurled with a spear thrower.

Louisiana.—The only work done in Louisiana during the fiscal year consisted of the reconnaissance made by Carl F. Miller at the Bayou Bodcau project on the Red River, northeast of Shreveport. He found that although there are archeological remains in that district, none of them occur in the area to be involved by the work of the Corps of Engineers.

Missouri Basin.—As in previous years, the program in the Missouri Basin was supervised and directed from the field headquarters at the University of Nebraska, in Lincoln. From July 1 until the end of December, Dr. Waldo R. Wedel was in charge of the program. His promotion to the position of curator of the division of archeology,

United States National Museum, made it necessary for him to withdraw from the River Basin Surveys activities, and on January 23 Paul L. Cooper was designated as acting field director.

Delay in the passage of the 1950 appropriation bill greatly reduced field work in the Missouri Basin during the summer of 1949 and prevented completion of the program originally set up for the fiscal year. However, it was possible to make surveys at the Onion Flat, Soral Creek, and Raft Lake Reservoirs in the Big Horn River basin in Wyoming during July, and to initiate an excavation program in the Angostura Reservoir in South Dakota. Nothing of archeological significance was noted in the three reservoirs, and no further work is recommended for them.

The investigations at the Angostura Reservoir continued from early in July until November and were resumed in May. Though the final results of the excavations will not be known until it is possible to study all the materials obtained, it may be said that the sites where digging was done represent a number of different cultures, most of them indicating pre-pottery-making peoples. At two of them, however, evidence was obtained of two different pottery-making groups. At one of the sites the occupation level was so deeply buried that it was necessary to use a bulldozer to remove the sterile overburden. Material from that particular site indicates a period of considerable antiquity. Tentative correlations suggest that it probably is comparable in age to some of the so-called Yuma remains in other parts of the Plains area.

Other field work accomplished during the 1949 season was an 18-day reconnaissance in the Oahe Reservoir area in South Dakota. Preliminary surveys had been made there in previous years, but during the reconnaissance in November more than 50 sites, many of them previously unrecorded, were visited.

Active field work was resumed in June when a paleontological party proceeded to the Angostura Reservoir, the Boysen and Anchor Reservoirs in Wyoming, and the Canyon Ferry project in Montana. Important fossils were recovered from the latter area. On June 7 excavations were started in the Garrison Reservoir in North Dakota, in the Tiber Reservoir in Montana, and later in the month at the Oahe project in South Dakota. All those activities were proceeding satisfactorily at the end of the fiscal year.

During the fall and winter months considerable work was done in the laboratory. Eight preliminary reports were written and mimeographed for distribution to the cooperating agencies. In all, 16,938 specimens collected from 146 sites in 16 reservoir areas were cleaned and cataloged. Fifty-six maps were drawn and 1,318 negatives processed. The negatives include field photographs, black-and-white

negatives of color transparencies, and laboratory photographs. Two hundred and six transparencies were cataloged and filed; 78 enlargements were printed and mounted; and 1,782 black-and-white contact prints were made, cataloged, and filed. More than 4,000 photographic copies of archeological records were made to bring the basic record file up to date. A considerable number of animal bones taken from archeological sites were identified and there was some restoration of fragmentary pottery.

G. Ellis Burcaw joined the staff as an archeologist on May 31 and left Lincoln on June 7 for the Garrison Reservoir in North Dakota, where he began a series of excavations at the so-called Rock Village. That site, one of the farthest upstream of the known fortified earth-lodge villages, was yielding considerable quantities of artifacts, including some European trade material, as work progressed at the close of the fiscal year.

Early in the fiscal year Paul L. Cooper devoted his time to studying materials pertaining to the archeological remains in the Oahe and Fort Randall Reservoirs. During September he made two brief trips to the Angostura and Oahe Reservoirs and late in October accompanied Dr. Frank H. H. Roberts, Jr., Director of the River Basin Surveys, on a visit to the excavation projects at the Angostura Reservoir and to inspect sites in other areas. During November he made a reconnaissance along the east side of the Missouri River in the Oahe Reservoir area. In December he accompanied Dr. Gordon Baldwin, of the National Park Service, Dr. Carlyle Smith, of the University of Kansas, and Wesley Hurt, of the University of South Dakota, on a trip to the Fort Randall and Oahe Reservoirs in South Dakota for the purpose of selecting sites for excavation by the Universities of Kansas and South Dakota during the summer of 1950. On January 23, 1950, he was designated acting field director of the River Basin Surveys, and thereafter his activities were mainly concerned with planning and supervising the headquarters and field activities of the organization.

Robert B. Cumming, Jr., archeologist, served throughout the year as laboratory supervisor at the Lincoln headquarters. During such time as the acting director was absent from the office, he assumed administrative responsibility for continuing its operations. In addition he carried on research work on the skeletal material from the Medicine Creek and Harlan County Reservoirs and prepared an appendix on the skeletal remains from the Woodruff ossuary for the technical report on the ossuary. He also did some work on the human remains from ossuaries in Nebraska.

Walter D. Enger, Jr., archeologist, joined the River Basin Surveys staff on May 31 and left Lincoln on June 9 to begin the excavation of

sites to be flooded by the proposed Tiber Reservoir on the Marias River in Montana. Previous surveys in that area had shown three types of sites, consisting of buried occupational levels exposed along the edges of the river terraces, surface sites on the river terraces, and tipi-ring sites on top of the plateau surrounding the reservoir. Because of the nature of the cultures represented, the artifact yield and the work accomplished before the end of the fiscal year was small, but considerable information was being obtained about the sequence of cultures and the general aboriginal characteristics of the area.

Jack T. Hughes, archeologist, left Lincoln on July 7 and proceeded to the Angostura Reservoir in South Dakota, where he initiated a series of excavations. Hughes continued in charge of that project until September when he resigned from the River Basin Surveys to return to Columbia University for further academic work. Mr. Hughes prepared a report on the results of the Angostura work obtained while he was in charge of the field party.

Donald J. Lehmer, Jr., archeologist, joined the Missouri Basin staff on June 1. He left Lincoln on June 9 with G. Ellis Burcaw and proceeded with him to the Tiber project where he assisted in establishing headquarters. From there he returned to Pierre, S. Dak., and on June 19 began the excavation of a stratified earth-lodge village in the area of the Oahe Dam approach channel. By the end of the fiscal year his party had identified house remains attributable to both the Arikara and the Mandan.

George Metcalf, field and laboratory assistant, spent the period from July 22, 1949, to November 7, 1949, with the field party at the Angostura Reservoir. During the fall and winter months he assisted in the analysis of the material from the Medicine Creek Reservoir and in the preparation of the report for the excavations made there during the previous fiscal year. He also made a study of ceramic materials from Upper Republican sites which are in the collections of the Nebraska State Historical Society at Lincoln. Metcalf left Lincoln on May 19 with the Wheeler party and at the close of the fiscal year was working at the Angostura Reservoir.

Robert L. Shalkop joined the staff as an archeologist on June 28, and at the end of the fiscal year was preparing to leave with a reconnaissance party to survey a number of reservoir projects in Montana and Wyoming.

James M. Shippee, field and laboratory assistant, was a member of the field party at the Angostura Reservoir from early in July until early in November. During the fall and winter months he devoted considerable time to the restoration of pottery vessels and the processing of other specimens from the Angostura excavations. During the spring months most of his time was occupied in the preparation of

field equipment to be used by the various parties during the summer months.

At the beginning of the fiscal year Richard P. Wheeler, archeologist, was engaged in preliminary archeological surveys of the Onion Flat, Soral Creek, and Raft Lake Reservoirs, in the Big Horn River basin, Fremont County, Wyo. He returned to the Lincoln headquarters on July 11 and spent the time from then until the middle of August preparing reports on the reservoir areas examined over the period in which his party had been in the field. In August he joined the Angostura field party and after the departure of Mr. Hughes took full charge of the operations. From September 4 to November 7, Wheeler and his crew partially excavated or tested and mapped 11 sites. He returned to Lincoln in November and devoted the time from then until the middle of April in analyzing artifacts, supervising the drawing of site maps and profiles, and preparing an outline and notes for the final report on the Angostura investigations. On April 19 he made a 5-day trip to the Angostura Reservoir to make plans for the excavations for the coming season. One month later he returned to the Angostura Reservoir with a field party and from then until the end of the fiscal year he excavated and tested two sites and supervised the removal of overburden with a bulldozer at two areas at a third site. The use of mechanized equipment in this particular instance was made necessary by the fact that the occupation level occurs beneath from 9 to 10 feet of sterile deposits, and there was not sufficient time to remove them by the usual hand methods. The materials found in the deeply buried level indicate an early hunting culture.

Dr. Theodore E. White, paleontologist, spent the early months of the fiscal year in the laboratory at Lincoln identifying osteological material obtained from archeological sites and in preparing a report on the physiography of the Angostura Reservoir. He worked in Texas in November and December. In January he was transferred to the Smithsonian Institution staff and was sent to Panamá. He returned to duty with the River Basin Surveys in May. He left the Lincoln headquarters on June 15 and proceeded to the Boysen Reservoir area in Wyoming, where he prospected for vertebrate fossils until June 15. He then moved on to the Anchor Reservoir area where he prospected the Upper Permian and Lower Triassic deposits. On June 21 he moved to the Canyon Ferry Reservoir area in Montana, and spent the time prospecting the Oligocene and Miocene deposits. Two of the Oligocene localities produced abundant specimens, mostly small mammals, while three new localities were discovered in the Miocene deposits. Material obtained from two of the new localities definitely establishes the presence of both Lower and Middle Miocene

deposits in the area. During the course of this work, Dr. White was assisted by Prentiss Shepherd, Jr., a student at Harvard University, and William C. Harrup, Jr., a student at Columbia University.

Ohio.—Field work in Ohio was restricted to brief visits to the proposed Deer Creek and Paint Creek Reservoirs on two tributaries of the Scioto River, near Chillicothe. Mr. Solecki, of the River Basin Surveys, went to Ohio in November and, in company with Clyde B. King, superintendent of Mound City National Monument, and Raymond Baby, archeologist of the Ohio State Archeological and Historical Society, Columbus, determined that no sites of archeological significance would be inundated by the proposed reservoirs. During the course of the reconnaissance, Mr. Solecki examined three features on Deer Creek and two nearby on Spruce Hill, which were purported to be Norse iron furnaces, but was unable to find anything that could be construed as conclusive proof that the remains represented ancient iron furnaces. The opinion was that the features probably had been lime kilns dating from the early Colonial period in the area.

Texas.—The River Basin Surveys in Texas continued to operate from the base and headquarters furnished by the Department of Anthropology of the University of Texas at Austin. Surveys were begun and completed at the Belton Reservoir on the Leon River, at the Canyon Reservoir on the Guadalupe River, and at the Texarkana Reservoir on the Sulphur River, near the town of Texarkana. The work at the Belton Reservoir resulted in the location of 43 archeological sites. Five of them were found to lie outside the reservoir area. Twelve of the remaining are rock-shelter sites, 12 are open occupational areas, and 4 are a combination of the two forms. The remainder consist either of burned rock middens or deeply buried middens. Testing was done in five sites, and a number of interesting artifacts were recovered. However, it was discovered that during the course of the years most of the sites in the area had been looted by commercial collectors and so little remains that further investigations are not warranted. Such evidence as was found during the reconnaissance and testing indicated that the Belton district probably was occupied by people of the Round Rock focus over a period of many centuries.

At the Canyon Reservoir, 20 archeological sites were located and recorded. Five of them are large open sites, 3 are small rock shelters, 1 is a deeply buried occupation level, 1 is a subterranean cavern, and the remaining 10 are small open sites containing a single burned rock midden in each. The area is one from which only meager archeological information is available and for that reason 8 of the sites have been recommended for excavation and complete analysis.

The Texarkana reconnaissance resulted in the location of 50 archeological sites, all of which are open occupational areas. At three of them there are small artificial mounds of the variety which has been called "Capped Ridge." Ten of the sites appear to belong to a non-pottery horizon, probably the Balcones phase. Seventeen are large village areas characterized by potsherds and appear to range in time from Early Gibson Aspect to Middle Fulton Aspect. At least two sites are related to the Coles Creek culture. The remainder are small sites of indeterminate affiliation. Of the total, 16 sites have been recommended for extensive excavation and analysis.

Excavations were carried on at the Whitney Reservoir from March 6 to June 18. During that period five Indian sites—three rock-shelter and two open sites—were extensively excavated and two historic sites were studied and recorded. One shelter called Pictograph Cave contained material from two different periods, the first probably dating before A. D. 1200 and the second sometime subsequent to that date but pre-Columbian. The early occupation is comparable in many respects to the Round Rock focus in Texas, while the second has not yet been correlated with other remains. The data obtained from the shelter give interesting information pertaining to changes in diet and population density during the two periods of occupation. The second, known as Buzzard Shelter, is not far from the first, and also gave evidence of an early occupation in the lower depths of the fill. The later occupation in the shelter suggests certain similarities to that of the Toyah focus. While there is considerable similarity between the cultural sequence found in the two shelters, there are specific differences in artifact types and stratigraphic proportions. The third shelter, known locally as Sheep Cave, is the largest of the three, and the material from it agrees in the main with that from the other two. Five flexed burials were found there, however, and study of the physical type represented should throw some light on the relationships of the people.

Three weeks were spent in the excavation of a small occupational area on the second terrace of the Brazos River at the Steele site. The evidence of occupation on the surface covers about an acre in extent and it is underlain by an unknown number of occupational levels of considerably greater extent. Traces of occupation extend to a depth of at least 15 feet, and it will be necessary to use mechanical equipment to excavate a deep trench in order to make stratigraphic studies. The site appears to be a significant one in that the most recent occupation was prior to the advent of pottery and the bow and arrow in that area.

The Stansbury site, the location of a historic Indian village, was the fifth area excavated. Material from it includes trade items of French,

English, and American origin. The occupation probably began in the mid-eighteenth century, or perhaps somewhat earlier, and lasted until 1869. House patterns with compact floor, post holes, central fire hearth, and bell-shaped cache pits were found. In general, it may be said that the site shows relationship with Taovayas site of Spanish Fort. It is located near the site of Towash Village, one of the historic sites studied. This village was an early white settlement dating from the 1840's to the present time. The first dam and bridge on the Brazos River were located there, and their remains, as well as those of the old stone store and church, are still to be seen. Measurements and photographs were taken in order to make scale drawings of the buildings.

The other historic site studied was that of Fort Graham, a frontier post dating 1849-54. The outlines of one of the buildings, as well as several other features, were located. It also was determined that the "Village of the Caddoes," visited by Ferdinand Roemer in 1846, was situated at the site of Fort Graham.

Excavations got under way at the Lavon Reservoir on June 19 in the Hogge Bridge site, one of 11 situated along the east fork of the Trinity River. Each of the sites contains a large circular pit, which is a feature peculiar to the area. Digging was started in one of the large pits in order to determine what their purpose may have been. By the end of the fiscal year, the southwestern quarter of the pit in the Hogge Bridge site had been cleared and the original surface uncovered. The pit was 10 feet deep, 65 feet in diameter on the inside, and had a rim of dirt from the original excavation piled around the periphery measuring 90 feet from crest to crest. The floor proved to be concave, and no post holes or evidences of a structure had been found by the end of the year. Along the east rim of the pit was a burial area, and on the inner slope of the south side of the pit a bear burial was uncovered. Potsherds indicate that the site probably dates between A. D. 1200 and 1500, but its cultural affiliations had not yet been determined.

During November and December Dr. Theodore E. White prospected the Upper Cretaceous deposits in the Lavon Reservoir for vertebrate fossils. A number of specimens were located, but time permitted the removal of only two. One consisted of a small mosasaur (unident) skull and the skull of a large mosasaur (*Tylosaurus?*).

During the time when he was not in the field, Robert L. Stephenson, archeologist, prepared reports on the various surveys which he had made and processed the specimens in the laboratory at Austin. In November he attended the Seventh Conference for Plains Archeology and presented a paper on the work he had been doing in Texas. In May he attended the meetings of the Society for American Archaeology

at Norman, Okla., and took part in the discussions held there. At the close of the fiscal year he was occupied with the excavations at the Lavon Reservoir.

Edward B. Jelks was appointed temporary assistant at the laboratory in October and in February was made assistant field archeologist. He helped Mr. Stephenson in the processing of specimens until March 6, when he proceeded with the party to the Whitney Reservoir and assisted in the excavation program throughout the course of the work. During such times as Mr. Stephenson was not with the party, Mr. Jelks was in full charge. On June 12 he was appointed archeologist and proceeded to the Lavon Reservoir, where he was at work at the end of the fiscal year.

Cooperating institutions.—As in previous years, numerous State and local institutions cooperated with the River Basin Surveys. Space for field offices and laboratories for units of the Surveys were provided by the Universities of Georgia, Nebraska, Oregon, and Texas. The Universities of Oregon and Washington and Washington State College joined forces with the Surveys both in reconnaissance work and in excavations at the McNary, O'Sullivan, Equalizing, and Chief Joseph Reservoirs in the Columbia Basin, while the University of Georgia took over the responsibility for the excavation of one large site in the Allatoona Reservoir in Georgia, and for a series of surveys as well as excavations along the Flint River in the southern part of that State. The University of Missouri and the Missouri Archeological Society continued their cooperation in making surveys in a number of proposed reservoir areas and in conducting some excavations. During the early months of the fiscal year, the Museum of Natural History of the University of Kansas, the Laboratory of Anthropology of the University of Nebraska, the State Museum of the University of Nebraska, and the Nebraska State Historical Society continued excavation projects that had been started toward the close of the preceding year. The University of Oklahoma continued work in the Fort Gibson Reservoir in the summer of 1949, and in June of 1950 returned to the area for further work.

Late in the fiscal year a program developed by the National Park Service, whereby various scientific agencies would carry on salvage work in proposed reservoir areas, got under way. On the basis of agreements between the National Park Service and the agencies concerned, certain funds were made available to the latter to help cover the expense of the investigations. The River Basin Surveys participated in that program in a consultative capacity only. The final results of the work accomplished, however, will be correlated with those of the Surveys.

INSTITUTE OF SOCIAL ANTHROPOLOGY

(Report prepared by GORDON R. WILLEY)

General statement.—The objectives of the Institute of Social Anthropology are anthropological research on the community life of rural peoples of Latin America and the training of Latin American nationals in the methods and principles of modern social anthropology. The aim is to inform both the social scientist and layman in the United States concerning little-known peoples of other parts of the world and to build up in various Latin American countries a corps of professionally trained scientists and friends.

During the past year the Institute was financed by transfers of funds from the Department of State, totaling \$82,510, from the appropriation "International Information and Education Activities, 1950." As in the previous year, long-term planning has been done on a very tentative basis because of budget uncertainties for the future. Early in the fiscal year reorganizations in Department of State technical-aid-type programs called for a reappraisal of the Institute's goals and programs. With the Point IV foreign aid scheduled to take the place of many of the projects of the former Committee for Scientific and Cultural Cooperation, the question was raised as to whether the work of the Institute should come within this new organizational framework. The decision of the Institute, in keeping with the general policy of the Smithsonian Institution, was that the Institute should continue with basic research and teaching and not enter directly into the field of applied social science. Nevertheless, the Institute, through the office of the Director, served in an informal consultative capacity to the Program Analysis and Reports Branch of the Interdepartmental Committee and to the Point IV successor of this committee. Such consultation has included recommendations for anthropological aid and personnel for Point IV work, conferences with the representatives of other governmental agencies considering technical assistance programs, and informal memoranda from our field representatives on features of local native life that provide a background for economic development programs.

The regular assignments and program of the Institute continued as formerly in the Washington office, and in the field stations in Brazil, Colombia, México, and Perú.

Washington office.—Dr. George M. Foster, Director, served from July 1 until September 3, assuming leave status at the end of this period to conduct privately sponsored research in Spain. Although these investigations in Spain are not officially connected with the Institute of Social Anthropology program, they bear directly upon it scientifically in view of the close historical relationships between Spain

and Latin America. Dr. Gordon R. Willey, on loan from the Bureau of American Ethnology, was Acting Director for the remainder of the year. Miss Lois C. Northcott, formerly secretary to the Director, became administrative assistant in November 1949.

Upon the recommendation of the Director, Dr. José M. Cruxent, Director of the Museo de Ciencias Naturales, Caracas, Venezuela, visited the United States on a Department of State grant-in-aid. He remained during August and September, traveling within this country to various museums and universities.

In February, Dr. Willey began an extended tour of Institute field posts and, en route, visited other Latin-American countries to renew professional contacts and to discuss scientific and local academic problems with Latin-American colleagues. Mexico City, Guatemala City, Panamá, Bogotá, Quito, Lima, Santiago, Buenos Aires, São Paulo, Rio de Janeiro, and Caracas were included on this trip.

Brazil.—Drs. Donald Pierson, sociologist, and Kalervo Oberg, social anthropologist, continued their research and teaching activities in cooperation with the Escola Livre de Sociologia e Política in São Paulo. Dr. Pierson, after a 2-months' consultation in the United States, assumed duties in the Escola Livre de Sociologia e Política as dean of the graduate section. In connection with these duties he trained graduate students in problems of academic administration. In addition he taught courses in sociology and social anthropology, supervised masters theses in social anthropology, and was engaged in writing and preparing manuscripts in social anthropology and sociology. In April Dr. Pierson represented the Smithsonian Institution at Brazil's National Indian Week celebrations in Rio de Janeiro. at the request of the Brazilian Embassy. During May and June, Dr. Pierson, accompanied by graduate students, undertook an intensive social anthropological survey of the large and important São Francisco River Valley. This field work was sponsored by the federal government of Brazil as well as by the Institute of Social Anthropology. A survey report is anticipated that will be of particular interest for the Brazilian Government's economic development plans for the São Francisco Valley.

Dr. Kalervo Oberg, accompanied by a student assistant, spent the months of July and August in the northwestern Mato Grosso among the Nambicuara, Iranxe, and other Indian groups. These tribes, some of the most primitive in the world, lead a completely isolated life, and there is very little scientific literature on them. He returned to São Paulo late in August and resumed teaching, devoting his research time to the preparation of a manuscript on the Mato Grosso field work. Dr. Oberg delivered the address at the Escola Livre de

Sociología e Política for the commencement exercises held in March. He spent May and June in the United States on consultation.

Colombia.—In Colombia, Dr. Raymond E. Crist, cultural geographer on leave from the University of Maryland, represented the Institute at the Universidad del Cauca, Popayan. For the past year Dr. Crist was in Colombia only for the months of July through August, returning to the United States in September. During this stay, which was a continuation of an appointment made in 1949, Dr. Crist and a group of Colombian scientists and graduate students made a survey trip into the western section of the Department of Cauca for the purpose of studying land utilization and agricultural and animal-husbandry techniques. In August he accompanied Dr. A. C. Whiteford of Beloit University on a field trip among the Guambiano Indians, and shortly thereafter he visited the lower Eastern Cordillera on a geographic survey. Dr. Crist was especially cited to the Secretary of State by the assistant public affairs officer in Bogotá for the professional and personal success of his stay in Colombia.

México.—Dr. Isabel T. Kelly, Institute representative assigned to the Escuela Nacional de Antropología in Mexico City, divided her time between teaching and the writing of the first volume of an ethnography of the Totonac Indians. This work was completed in March, and since then Dr. Kelly has continued with preparation of the second volume. She also carried on a research seminar for Mexican graduate students in the writing and general preparation of scientific monographs.

The United States-sponsored Benjamin Franklin Library in Mexico City exhibited some 80 photographs taken by Dr. Kelly during her work among the Totonac Indians, and these photographs were later borrowed by the Mexican Government for displays in Jalapa, Monterrey, Morelia, and Oaxaca. Dr. Kelly's activities have been favorably publicized by a feature article released in the Mexican popular weekly magazine *Nosotros*.

In connection with the Washington office's attempt to demonstrate the utility of anthropology for the Point IV type of economic development program, Dr. Kelly prepared an analysis of possibilities for public housing in the tropical coastal area of the Gulf of Mexico. This was written from the point of view of the native cultures involved, with which Dr. Kelly is expertly familiar, and points up the conflicts and difficulties to be overcome in implanting technological ideas on alien societies. During September Dr. Kelly was in the United States for consultation.

Perú.—The 1950 year opened with Dr. George A. Kubler, on leave from Yale University, as the Institute's representative attached to the Peruvian Instituto de Estudios Etnológicos in Lima. Dr. Kubler, an

authority on the Colonial Period in Perú, continued with his research on archival material in the Department of La Libertad, Trujillo, as well as in the Lima archives. Consultation with students in anthropology and history was also maintained. Dr. Kubler returned to the United States in September. A manuscript covering a part of Dr. Kubler's work in Perú, "The Indian Caste of Perú, 1795-1950," an analysis of population and racial attitudes, was submitted for publication in April.

Ozzie G. Simmons, current representative in Perú, arrived in Lima in November. Mr. Simmons offered a course on American ethnic groups and acculturation in the Peruvian Instituto de Estudios Etnológicos and began field investigations at the town of Lunahuaná. Studies at this community, initiated in February with the aid of a student assistant, have run throughout the year and will extend into 1951. Coincident with this research Mr. Simmons is collaborating in a seminar on social anthropological field methods. He has also aided in a questionnaire project conducted by the Peruvian National School of Social Work among groups of highland Indians who have recently moved to the vicinity of Lima in response to industrial opportunities. Quite importantly, he has been instrumental in advising the Peruvian Ministry of Public Health to add a Peruvian social anthropologist to their staff for work in the Department of Ica. This has created an excellent job opportunity for a Peruvian trained by us and has shown the way for further employment of our trainees in governmental departments.

EDITORIAL WORK AND PUBLICATIONS

There were issued one Annual Report and one Bulletin volume (Handbook of South American Indians), and one Publication of the Institute of Social Anthropology as listed below:

Sixty-sixth Annual Report of the Bureau of American Ethnology, 1948-1949. 34 pp.

Bulletin 143. Handbook of South American Indians. Julian H. Steward, editor. Volume 5, The comparative ethnology of South American Indians. xxvi+818 pp., 56 pls., 190 figs., 22 maps. 1949.

Institute of Social Anthropology Publ. No. 10. Nomads of the Long Bow: The Siriono of eastern Bolivia, by Allan R. Holmberg. 104 pp., 7 pls., 4 charts, 1 map. 1950.

The following publications were in press at the close of the fiscal year:

Bulletin 143. Handbook of South American Indians. Julian H. Steward, editor. Volume 6, Physical anthropology, linguistics, and cultural geography of South American Indians.

Bulletin 144. The northern and central Nootkan tribes, by Philip Drucker.

Bulletin 145. The Indian tribes of North America, by John R. Swanton.

Bulletin 146. Chippewa child life and its cultural background, by Sister M. Inez Hilger.

Bulletin 147. Journal of an expedition to the Mauvaises Terres and the Upper Missouri in 1850, by Thaddeus B. Culbertson. Edited by John Francis McDermott.

Bulletin 148. Arapaho child life and its cultural background, by Sister M. Inez Hilger.

Institute of Social Anthropology Publ. No. 11. Quiroga: A Mexican Municipio, by Donald D. Brand.

Institute of Social Anthropology Publ. No. 12. Cruz das Almas: A Brazilian village, by Donald Pierson.

Institute of Social Anthropology Publ. No. 13. The Tajin Totonac: Part 1. History, subsistence, and technology, by Isabel Kelly and Angel Palerm.

Institute of Social Anthropology Publ. No. 14. The Indian caste of Peru, 1795-1950: A population study based upon tax records and census reports, by George Kubler.

Publications distributed totaled 19,116 as compared with 19,660 for the fiscal year 1949.

LIBRARY

The total number of volumes accessioned in the library is 34,838, an increase of 119 volumes over the fiscal year 1949.

ARCHIVES

The largest collection of Indian photographs acquired by the Bureau in many years was obtained during the past year when the Library of Congress gave permission to copy pictures submitted long ago for copyright purposes. These pictures, made more than 50 years ago, show many famous Indians whose portraits are new to the collections. Another group of 50 rare Indian photographs was received from Eddie Herman, a Sioux Indian of Hot Springs, S. Dak.

The manuscript material in the archives of the Bureau has been used by research workers both by personal visits for consultation and by correspondence.

A new manuscript of 2,380 pages, in the Fox Indian language, consisting of a vocabulary, with grammatical and linguistic notes, was donated to the Bureau by Miss Ella A. Merritt of Washington. This work was compiled by the late James Brannin, formerly connected with the United States Navy during the time (1935-42) he was stationed near the Fox Indians in Wisconsin.

COLLECTIONS

Acc. No.

175998. Surface material from aboriginal sites in Allatoona Reservoir area, Cherokee, Bartow, and Cobb Counties, northwest Georgia, collected by Joseph R. Caldwell from November 1946 to April 1947. River Basin Surveys.

Acc. No.

182578. Archeological materials, consisting of stone artifacts and potsherds, from two prehistoric shell mounds near Monagrillo, Herrera Province, Republic of Panamá, and including in the Monagrillo pottery series what is believed to be the earliest yet known from Panamá, collected by Drs. M. W. Stirling and Gordon R. Willey during the 1948 Smithsonian Institution-National Geographic Society expedition to Panamá.
182845. A collection of archeological material together with 250 geological specimens, 31 mammals, botanical specimens, 4 fish, 20 insects, and approximately 64 marine invertebrates from Cornwallis Island, the Canadian Arctic, collected by Henry B. Collins, Jr., in the summer of 1949 on the National Museum of Canada-Smithsonian Institution Expedition.
183940. 68 potsherds of various types from an archeological site, Crystal River, Citrus County, Fla., collected by Dr. Gordon R. Willey.
185245. 2 beetles, 2 lizards, 1 snake, and 1 frog from Province of Chiriquí, Panamá, collected by Dr. M. W. Stirling.
185249. About 20 specimens of Eocene invertebrate fossils from Louisiana, collected by Carl F. Miller. River Basin Surveys.
185382. 11 original oil paintings of Yahgan, Ona, and Tehuelche Indians, Argentine prisoners, and scenes of the Furlong Expedition of 1908 to Tierra del Fuego, painted by Charles W. Furlong.
185538. (Through Carl F. Miller) 12 fresh-water mollusks from northwestern Georgia, gathered in an Indian village site. River Basin Surveys.
185627. (Through Dr. Frank H. H. Roberts, Jr.) 2 mosasaur skulls collected by Dr. T. E. White from upper Cretaceous deposits of the Lavon Reservoir area, 1 mile east of Culeoka, Collin County, Tex. River Basin Surveys.
186797. 4 dictaphones and phonographs, including ones used by Alice C. Fletcher and Frances Densmore.

MISCELLANEOUS

Miss Frances Densmore, Dr. John R. Swanton, and Dr. Antonio J. Waring, Jr., continued as collaborators of the Bureau of American Ethnology.

During the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the American Indians, past and present, of both continents. The increased number of requests from teachers of primary and secondary grades and from Scout organizations indicates a rapidly growing interest in the American Indian throughout the country. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Respectfully submitted.

M. W. STIRLING, *Director.*

Dr. A. WETMORE,
Secretary, Smithsonian Institution.



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Sixty-eighth Annual Report
of the
**BUREAU OF AMERICAN
ETHNOLOGY**

1950-1951



SMITHSONIAN INSTITUTION
WASHINGTON
D. C.

SIXTY-EIGHTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY
TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1950-1951



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1952

BUREAU OF AMERICAN ETHNOLOGY

June 30, 1951

Director.—MATTHEW W. STIRLING.

Associate Director.—FRANK H. H. ROBERTS, Jr.

Senior ethnologists.—H. B. COLLINS, Jr., JOHN P. HARRINGTON, W. N. FENTON.

Collaborators.—FRANCES DENSMORE, JOHN R. SWANTON, A. J. WARING, Jr.

Editor.—M. HELEN PALMER.

Librarian.—MIRIAM B. KETCHUM.

Scientific illustrator.—E. G. SCHUMACHER.

INSTITUTE OF SOCIAL ANTHROPOLOGY

Director.—G. M. FOSTER, Jr.

Anthropologists.—*Brazilian office:* DONALD PIERSON, KALERVO OBERG; *Colombian office:* CHARLES J. ERASMUS; *Mexican office:* ISABEL T. KELLY, WILLIAM L. WONDERLY, linguist; *Peruvian office:* OZZIE G. SIMMONS.

RIVER BASIN SURVEYS

Director.—FRANK H. H. ROBERTS, Jr.

Archeologists.—G. ELLIS BURCAW, JOSEPH R. CALDWELL, GEORGE A. CHENEY, PAUL L. COOPER, ROBERT B. CUMMING, Jr., RICHARD D. DAUGHERTY, WALTER D. ENGER, Jr., FRANKLIN FENENGA, DONALD D. HARTLE, EDWARD B. JELKS, DONALD J. LEHMER, CARL F. MILLER, HOMER DOUGLAS OSBORNE, ROBERT L. SHALKOP, JOEL L. SHINER, G. HUBERT SMITH, RALPH S. SOLECKI, ROBERT L. STEPHENSON, SAMUEL J. TOBIN, RICHARD PAGE WHEELER.

Paleontologist.—THEODORE E. WHITE.

SIXTY-EIGHTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, *Director*

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1951, conducted in accordance with the Act of Congress of April 10, 1928, as amended August 22, 1949, which provides for continuing "independently or in cooperation anthropological researches among the American Indians and the natives of lands under the jurisdiction or protection of the United States and the excavation and preservation of archeologic remains."

SYSTEMATIC RESEARCHES

Dr. M. W. Stirling, Director of the Bureau, left Washington early in January to continue the program of archeological work in Panamá inaugurated in 1948 in cooperation with the National Geographic Society. En route, he made stops of several days each in México, Guatemala, El Salvador, and Costa Rica to study and photograph archeological collections in those countries. In Panamá the primary objective was an archeological reconnaissance on the relatively unexplored Atlantic coast of Panamá lying between the Canal Zone and the Chiriquí lagoon. It was here in 1502 that Columbus attempted to establish the first European colony on the American mainland. Three river systems in this region were explored—the Río Salud, Río Indio, and Río Coclé del Norte. The latter is the largest river on the Panamá north coast. Columbus found this region inhabited by Indians who wore gold ornaments and who did not live in villages but in single houses separated from one another by considerable distances. Dr. Stirling's archeological work confirmed this observation. The archeological remains consisted primarily of pottery and stone objects removed from the refuse deposits where the houses had stood. Near the coast the pottery was simple in style, unpainted, and with a limited variety of forms. Near the headwaters of the rivers the pottery became more elaborate as a result of influences from the high culture centers that existed in pre-Columbian times on the Pacific side of the divide. On concluding this survey, in the latter part of March, the expedition established headquarters at La Pintada in the Pacific drainage opposite the headwaters of the Coclé del Norte, where additional excavations were undertaken with the intention of estab-

lishing the relation between the prehistoric cultures of the two regions. Dr. Robert Rands accompanied Dr. Stirling in the field as archeological assistant.

Dr. Frank H. H. Roberts, Jr., Associate Director of the Bureau and Director of the River Basin Surveys, devoted most of his time during the year to the management and direction of the River Basin Surveys. In October he went to Lincoln, Nebr., to inspect the Missouri Basin headquarters. Accompanied by Paul L. Cooper, field director, he then proceeded to the Fort Randall Reservoir area near Chamberlain, S. Dak., and visited a number of archeological sites that were being tested by one of the field parties. From Chamberlain he went to Pierre, S. Dak., and inspected the investigations being carried on in the area of the Oahe Dam. Dr. Roberts also went to several other sites that will be flooded by the Oahe Reservoir and discussed with Mr. Cooper plans for excavation projects at those locations when field work got under way in the spring months. After returning to the headquarters at Lincoln, Dr. Roberts went to Colorado where early in November he spent two days at the Lindenmeier site seeking charcoal that could be used for carbon-14 dating. He also spent two days testing a rock shelter near Livermore, which had been reported to contain materials belonging to the Folsom complex. Dr. Roberts found considerable evidence of occupancy of the shelter by recent Indians but saw nothing to indicate the older horizon. In April he went to Clarksville, Va., where excavations were under way in sites that will be flooded by the Buggs Island Reservoir. In May he went to Evanston, Ill., to attend the annual meeting of the Society for American Archaeology, of which he was President, and then proceeded to Lincoln, Nebr., where he assisted in the preparation of plans for the summer field season in the Missouri Basin. From Lincoln he went to Oklahoma and spent several days visiting sites in the Tenkiller Ferry Reservoir and observing the excavations that were being made by a River Basin Surveys' party near Tahlequah.

At the beginning of the fiscal year Dr. Henry B. Collins, anthropologist, left for a second season of field work on Cornwallis Island in the Canadian Arctic. As in the two preceding years the work was conducted under the joint auspices of the Smithsonian Institution and the National Museum of Canada. Dr. Collins and his assistant, Walter E. Taylor, anthropology student at the University of Toronto, were flown by the Royal Canadian Air Force from Montreal to the Resolute Bay weather station on Cornwallis Island, stopping en route at Churchill on Hudson Bay. The excavations yielded a large collection of the Thule culture material, most of it from in and around an unusually large stone and whalebone house at the site designated as M 1, a mile from the weather station. Just to the rear of this house was a small and inconspicuous house ruin, indicated only by a shal-

low depression in the ground, which turned out to be the oldest Thule structure thus far found in the central or eastern Arctic. The artifacts from this house were identical with those from the earliest Thule sites in Alaska. The house had evidently been occupied very briefly, for perhaps only one or two years, by some of the first Thule migrants from Alaska, who in all likelihood had then continued on their way to northwest Greenland. A similar shallow depression nearby yielded Dorset objects, the first indication that this early but little-known Eskimo culture had reached Cornwallis Island. Three culture stages are thus represented at Resolute—Dorset, early Thule, and developed Thule. The first two were probably represented by only a few families who lived there for very short periods. The last stage was of much longer duration, probably a century or more, during which time the population was probably to be numbered in the hundreds. In June 1951 Mr. Taylor returned to Resolute to complete some of the excavations that had to be left unfinished the preceding August.

Dr. Collins was reelected to the board of governors of the Arctic Institute for a 3-year term, and also for a 1-year term as treasurer of the organization. He continued to serve as chairman of the directing committee that planned and supervised the bibliography and roster projects on which the Arctic Institute has been engaged for the past four years under contract with the Office of Naval Research. The Roster of Arctic Specialists, containing biographical data on American and Canadian citizens having expert knowledge of the Arctic regions, was completed and turned over to the agencies that had sponsored and financed the work—U. S. Departments of the Army, Navy, Air Force, and Defense Research Board of Canada. The first five volumes of the Arctic Bibliography were also completed and delivered to the Government Printing Office through the Department of the Army, which had contributed additional funds for its publication. Prepared under the direction of Miss Marie Tremaine with a staff including expert bibliographers, translators, and scientists working at the Library of Congress and other libraries in the United States and Canada, the Arctic Bibliography is one of the most comprehensive regional bibliographies ever assembled and should be a useful research tool for scientists and others interested in the North.

At the beginning of the fiscal year, Dr. John P. Harrington was on the Crow Indian Reservation in southern Montana conducting linguistic studies. Dr. Harrington found in connection with his studies that the word Missouri, formerly thought to mean "large canoe" or "wooden canoe," means simply "canoe" and, as applied since aboriginal times to the Missouri River, means by implication the navigated river. Dr. Harrington also obtained detailed information concerning the Mandan coracle or bull boat from Crowsheart, an Indian 94 years of age. An article was completed on this subject. On December 19,

Dr. Harrington returned to Washington, D. C., and spent the time until March 9 writing reports on his field work. On this date he left for México in order to resume his studies on the Maya language. At the end of the fiscal year he was in Mexico City continuing this work.

Commencing July 1, Dr. William N. Fenton, having completed an assignment for the Indian Service at Taos Pueblo, conducted a survey of manuscripts relating to the ethnohistory of eastern Indians in the Henry E. Huntington Library at San Marino, Calif. The latter research, carried out with the aid of grants from the research funds of the American Philosophical Society, was published in the *Proceedings of the American Philosophical Society*, vol. 95, No. 3.

Factions are a peculiar feature of American Indian political organization that has yet to be worked out for the country as a whole. Some ideas about political structure and methods of field work, which Dr. Fenton developed over a long period of field and library study among the Six Nations, were this past year transferred to the study of Indian self-government, which is riddled with factional disputes, in three divergent tribal cultures—Taos, Klamath, and Blackfeet. Each field situation was unique and required adjusting techniques, but the main principles hold. Field work was completed at Klamath Indian Agency in August, and the situation at Blackfeet Agency in Montana was explored during September. On returning to Washington late in September, at the request of the Indian Bureau Dr. Fenton drafted a comprehensive plan for the study of the Blackfeet problem by a team of social-science specialists who would be drawn from several disciplines including anthropology.

RIVER BASIN SURVEYS

(Report prepared by FRANK H. H. ROBERTS, Jr.)

Instituted in the fall of 1945 as a unit of the Bureau of American Ethnology, the River Basin Surveys were organized to carry into effect a memorandum of understanding between the National Park Service and the Smithsonian Institution. The memorandum pertains to the salvage of archeological and paleontological remains that would otherwise be lost as a result of numerous projects for flood control and irrigation, hydroelectric installations, and navigation improvements in the river basins of the United States. The field work was started in July 1946 and has continued since that date. During the entire period of operations the investigations have been conducted as an interagency program with full cooperation on the part of the Smithsonian Institution, the National Park Service, and the Bureau of Reclamation of the Interior Department, and the Corps of Engineers of the Department of the Army. In addition, numerous non-Federal institutions scattered throughout the various States have

aided in the work. The program in the last fiscal year was financed by a transfer of \$174,375 to the Smithsonian Institution by the National Park Service. Those funds were derived in part from the National Park Service and in part from the Bureau of Reclamation. The money from the Bureau of Reclamation was for use in the Missouri Basin, while that from the National Park Service was for use in all other areas throughout the United States. Because the appropriations for the previous year became available so late in the field season, a substantial carry-over (\$135,574) increased the 1951 funds so that a much larger series of investigations was possible than would otherwise have been the case.

Activities during the year consisted of reconnaissance or surveys for the purpose of locating archeological sites or paleontological deposits that will be flooded or otherwise destroyed by construction work and in the excavation of sites located by previous surveys. In all, 45 reservoir basins located in 13 States and scattered over 8 river basins were visited by survey parties. In addition one lock project and four canal areas were examined. Excavations were completed or were under way at the end of the fiscal year in 20 reservoir areas in 10 States. During the course of the year there were 26 excavating parties in the field. Eight of the excavation projects were in areas where digging was done in previous years, but the remainder were new undertakings. When the fiscal year closed, the total of the reservoir areas where surveys had been made or excavations carried on since the beginning of actual field work in July 1946 was 225 located in 25 States. During the course of the work 2,894 archeological sites have been located and recorded, and of that number 545 have been recommended for excavation or additional testing. Preliminary appraisal reports were completed for all the reservoirs surveyed, and 14 reports were mimeographed for limited distribution to the co-operating agencies. This makes a total of 134 such reports issued since the start of the program. In some cases a series of reservoirs is included in a single report covering a subbasin, and for that reason the total number of reports is less than that of the reservoirs. The excavations made during the fiscal year brought the total for areas where such work has been done to 33. The results of some of that work have been published as technical reports in various scientific journals, and one Bulletin of the Bureau of American Ethnology containing eight such papers is now in press. That Bulletin inaugurates a new series, to be called "River Basin Surveys Papers" and designed as an outlet for the reports resulting from the interagency archeological salvage program. Paleontological surveys have been made in 115 reservoir areas, 70 being those where archeological work has also been done. The remaining 45 in due course will be investigated by

archeological parties. The over-all total of reservoirs visited, including those where archeological work still needs to be done, is 270.

The reservoirs investigated for archeological remains as of June 30, 1951, have the following distribution by States: California, 20; Colorado, 24; Georgia, 4; Idaho, 11; Illinois, 2; Iowa, 3; Kansas, 7; Kentucky, 1; Louisiana, 1; Minnesota, 1; Montana, 14; Nebraska, 27; New Mexico, 1; North Dakota, 13; Ohio, 2; Oklahoma, 7; Oregon, 26; Pennsylvania, 2; South Dakota, 9; Tennessee, 1; Texas, 15; Virginia, 2; Washington, 11; West Virginia, 2; Wyoming, 19. Excavations since the start of the program have been made in: California, 5; Colorado, 1; Georgia, 1; Kansas, 1; Montana, 1; Nebraska, 1; New Mexico, 1; North Dakota, 4; Oklahoma, 2; Oregon, 3; South Dakota, 5; Texas, 7; Virginia, 1; Washington, 8; Wyoming, 3.

The River Basin Surveys received extensive cooperation during the year from the National Park Service, the Bureau of Reclamation, the Corps of Engineers, and numerous State and local institutions. Guides and transportation were furnished staff men in the field at a number of projects, while at others office and laboratory space was provided. In several cases labor and mechanical equipment were contributed by the construction agency. Had it not been for the assistance provided in that way, it would not have been possible for the River Basin Surveys' men to accomplish as much as they did. As in past years, the National Park Service served as the liaison between the various agencies and provided the Smithsonian Institution with the necessary information concerning the locations of the proposed dams and reservoirs and also their priorities. In addition, the National Park Service carried the responsibility for budgeting the costs of the program and for procuring the funds.

General supervision and direction of the work in California, Georgia, Kentucky, Oklahoma, Pennsylvania, and Virginia were from the main office in Washington. The program in the Columbia Basin was directed from a field headquarters and laboratory at Eugene, Oreg.; that in the Missouri Basin was under the supervision of a field office and laboratory at Lincoln, Nebr.; and that in Texas was under the field office at Austin. All the materials collected by the survey and excavation parties in those three areas were processed at the field laboratories. In addition, the collections made in Georgia were processed at a laboratory at Athens.

Washington office.—The main headquarters of the River Basin Surveys continued under the direction of Dr. Frank H. H. Roberts, Jr. Joseph R. Caldwell, Carl F. Miller, and Ralph S. Solecki, archeologists, were based on that office, although Caldwell spent the entire year in Georgia, and Solecki took leave of absence to join an expedition going to the Near East. Dr. Theodore E. White, paleontologist, di-

vided his time between the Washington office, the Missouri Basin, and the Texas area.

Mr. Caldwell spent the early months of the fiscal year working on his report on the results of the excavations completed during the previous year at the Allatoona Reservoir. In November he proceeded to the Buford Reservoir area on the Chattahoochee River northeast of Atlanta where he carried on a survey until April 6. In the latter part of April Mr. Caldwell made an investigation at the site of Fort Charlotte in McCormick County, S. C., to determine what work might be necessary to obtain full information about it before it is flooded by the waters of the Clark Hill Reservoir. From Fort Charlotte Mr. Caldwell returned to his field base at Athens where he prepared a manuscript "The Booger Bottom Mound: A Forsyth Period Site in Hall County, Georgia."

At the beginning of the year, Carl F. Miller was carrying on excavations at a site on the east bank of the Roanoke River near Clarksville, Va. He continued operations there until August 4, when he returned to Washington. During the months spent in the office, Mr. Miller worked on his section of the report on the excavations at the Allatoona Reservoir in Georgia. On February 28 he returned to Clarksville and resumed investigations in the Buggs Island Reservoir area. Those operations continued until June 20, when he proceeded to Bassett, Va., and made a survey at the Philpott Reservoir on the Smith River. He returned to Washington on June 30. During such times as the Director was absent from the Washington office, Mr. Miller served as Acting Director of the River Basin Surveys.

Ralph S. Solecki devoted the early months of the year to the completion of reports on work done previously. In October he made a brief investigation of the area at Morgantown, W. Va., where a new navigation lock was under construction. From there he proceeded to the Conemaugh Reservoir on the Conemaugh River in western Pennsylvania, where he made a reconnaissance of the area that will be flooded. From the Conemaugh project he proceeded to the East Branch Reservoir basin on the Clarion River, also in Pennsylvania. After completing the survey of that area, he returned to Washington and completed his report on the field investigations.

Dr. Theodore E. White spent the winter and early spring months in Washington studying the materials he had collected during the summer field season and in the preparation of a manuscript "Preliminary Analysis of the Fossil Vertebrates of the Canyon Ferry Reservoir Area." In April he went to Texas where he collected fossils from the Lavon Reservoir on the East Fork of the Trinity River in Tarrant County and from the Garza-Little Elm Reservoir on the Elm Fork of the same river in Denton County. In June Dr. White proceeded from

Texas to Lincoln, Nebr., and resumed his activities in the Missouri Basin.

California.—At the beginning of the fiscal year a party under the direction of Franklin Fenenga was excavating a site in the Terminus Reservoir area on the Kaweah River, in Tulare County. That work was continued until August 1, and upon its completion detailed information had been obtained about a small village consisting of 14 houses and 3 distinct milling places. The site was important because it provided an opportunity to study the remains left by a group of people who occupied the region in historic times and concerning whom there is an extraordinarily complete ethnographic record. The lower end of the Kaweah Canyon was formerly occupied by a small band of the Yokut Indians known as the Wukchumne or Wickchamni. Correlations of the data from both the ethnological and archeological sources of information will make it possible to prepare an archeological report containing an almost unique amount of information on the function and significance of the artifacts and the various features of the site. Many items of the material culture previously known only through tradition are now represented by actual objects recovered during the archeological researches.

Upon the completion of the digging at the Terminus Reservoir, Mr. Fenenga moved his party to the Folsom Reservoir located on the American River, in Eldorado County, where excavations were carried on from August 3 to September 16. About 75 percent of the site was investigated. The returns were small in that only a single burial and 214 artifacts were found. The burial was that of a child about 12 years old and had no accompanying offerings. The artifacts consist for the most part of stone and, as most of them are unspecialized forms making functional identifications or comparisons with objects from other sites difficult, they are not particularly significant. A small series of arrow points, about half of which were made from a native opal, will be useful in the matter of correlation with other sites, but at present there is so little material available for study from that particular region that conclusions are not warranted. Until more data are obtained, it will not be possible to give a reasonably complete picture of the material culture of the people who occupied the site.

Two field parties excavated at the Cachuma Reservoir on the Santa Ynez River, in Santa Barbara County. One of them, under Albert D. Mohr, worked from August 1 to September 12, while the other, under Martin Baumhoff, worked from April 3 until May 18. The first party excavated in a site that contained evidence of three cultures previously described by David Banks Rogers. They are the Oak Grove, Hunting, and "Chumash." The evidence obtained there substantiated the re-

ported sequence for the Santa Barbara area. It also indicated that two phases each of the last two periods might be defined as the result of further work. The same party also did some testing in another site which apparently represents a single late period that extended into early historic times.

The party under Mr. Baumhoff concentrated its efforts at the second site where Mr. Mohr worked and obtained considerable additional information from it. Preliminary study of the artifacts indicates that the occupation is attributable to the Canaliño. There is evidence of trading activities in the form of tubular beads from the San Joaquin Valley and potsherds similar to the pottery made by the Yokuts of that region and the western Paiutes. No house remains were found, but there were scattered piles of stones that appear to have been intentional rather than accidental, and in one case there was a pear-shaped pit 12 feet 8 inches long, 6 feet 3 inches wide, and 1 foot 3 inches in depth, which had been lined with slabs of shale and was filled with rocks of all sizes. The function of the pit has not been determined. It was at first thought that the feature may have been a sweat house, but the nature of the shale lining was such that it probably would not have withstood the heating necessary for sweat-house purposes. Additional work is needed at the Cachuma Reservoir in order to gain a better understanding of the aboriginal history of the area.

Columbia Basin.—Work in the Columbia Basin was continued under the supervision of the field headquarters at Eugene, Oreg., where laboratory and office space were provided by the University of Oregon. Joel L. Shiner served as acting field director throughout the year. Activities in that area consisted of a survey of six reservoir projects and excavations in four areas where preliminary reconnaissance work had already been completed. The John Day Reservoir basin on the John Day River, in Oregon, was examined by Robert Farrell and Stuart Peck during the first two weeks in July. The party found 88 sites and recommended testing or more extended excavations for 8 of them. From the John Day Reservoir, Peck and Farrell proceeded to the Hells Canyon Reservoir on the Snake River, in Oregon-Idaho, where they found 22 sites, of which 4 were recommended for investigation. The latter survey was completed the middle of August. During July George L. Coale and Octavio Romano surveyed the area to be flooded by the Albeni Falls Reservoir on the Pend Oreille River, in northern Idaho. They found 13 sites and recommended the testing of 5. Construction work on the dam has progressed to such an extent that the indicated work may not be possible at that location. From the Albeni Falls area, Coale and Romano proceeded to the Katka and Libby Reservoir projects on the Kootenai River, in Idaho and Montana, where they made a preliminary reconnaissance. The Katka Dam is located in Idaho, but the reservoir will extend upstream into

Montana. The survey of the Katka area located and recorded 14 sites, of which one was recommended for excavation. Three others, however, were found to be worthy of testing. The Libby area contains 11 archeological sites, and because so little is known of the archeology of the Kootenai Indians, 6 of the 11 were recommended for further study. Extensive excavation would not be required at any of them, however. John M. Campbell spent July and August making a survey of the Priest Rapids Reservoir basin. The Priest Rapids Dam is to be built in the Columbia River just below the rapids and will create a pool area 56 miles long. The district to be flooded is an important one from the standpoint of the aboriginal occupation of the area, and 74 sites were found there. Of that number, 29 are considered to be of high archeological significance. The sites consist of those with well-preserved house pits, the remains of open camps, cave shelters, burial grounds, and various groups of pictographs. The region is one that was occupied by several different Indian groups, and knowledge from it should have an important bearing on a large section of the Plateau Culture area.

At the start of the fiscal year a party under the direction of Douglas Osborne, consulting archeologist, was continuing excavations at a site on the Washington side of the Columbia River near Mottinger in the McNary Reservoir basin. The site was that of a postcontact village and probably was the location of that visited by Robert Stuart in 1812. During the course of the digging three house pits and one mat lodge were uncovered, and three additional house pits were tested. The house pits were circular, and if the identification of the village is correct it would indicate that the circular earth lodge was in use in that area at a later date than most anthropologists have believed. The artifacts obtained were not numerous, which is a condition found at most of the places worked in the McNary basin. In addition to aboriginal stone and bone implements and shell ornaments, a variety of European goods was obtained. Several of the house pits gave evidence of several separate occupations, which may indicate that the village was not lived in continuously but was revisited from time to time, perhaps by the same group of people. The remains of the long narrow mat house, which was a popular form of multifamily dwelling during the historical period in that area, agree closely with the descriptions of such houses given by the Umatilla Indians to ethnological investigators in previous years. One complete burial was recovered at that location. Late in July Mr. Osborne transferred his party to a site near Cold Springs on the Oregon side of the river where he dug four house pits in the remains of a small village. During periods of high water the site appears to be located on an island, as a portion of the river flows through an old channel and separates it from high ground to the south. The village was situated on the side nearest

the main channel and consisted of two distinct groups of houses. The largest group was centered about 500 feet downstream from the smaller one. An almost identical condition had previously been noted at another site where work was done during the summer of 1949, but thus far no explanation for such a division has been found. The pits at this particular location were also circular in form and indicated a single occupation. The lack of well-developed midden or refuse areas implies that the village must have been short-lived or that particular care was taken to throw refuse into or near the river. Trade goods were scarce at this site, which would seem to indicate that it should be dated as slightly earlier than the time of the first contact with the Whites or just prior to 1800. The Lewis and Clark map shows the "island" but does not indicate the presence of a village or at least the existence of houses. It would appear that the village had been abandoned and had fallen into ruin before 1805. The most important contribution from the excavations at these sites is the verification of data secured at other locations in the McNary, particularly with respect to the size and shape of the former houses and their artifact associations; also, it was indicated that, while fishing was the primary source of subsistence, hunting actually played a larger part in the economy than previously supposed. Mr. Osborne also completed the excavation of a house pit at a site 1 mile downstream where work was done the previous summer, and in addition located and removed 17 burials from Sheep Island in the middle of the river about equidistant from the other three sites. Some work had been done previously at that location by Thomas R. Garth, who was then with the National Park Service. Osborne, who was under a temporary appointment as consulting archeologist, completed his investigations the end of August and returned to his regular duties at the Washington State Museum.

Richard D. Daugherty and his party continued the excavations started near the end of the previous fiscal year at the O'Sullivan Reservoir near Ephrata, Wash., and completed the investigations on September 2. They spent the summer season at a small village site close to a larger one where Daugherty did some work in the summer of 1948. During the current year two large circular house pits were dug, and the remains of a rectangular mat dwelling were uncovered. A series of cairns that had formerly contained burials was also studied. The graves had been systematically rifled by local collectors, however, and little could be learned other than that the piles of stone had covered the remains of cremations. Information pertaining to the house types agreed with that from the previous digging, and from that data it will be possible to draw a number of conclusions about the dwellings of the area. Not a single item was found suggesting White contact, but the similarity of the artifacts to those from other sites in the region where there was association with contact material suggests that

the occupancy was not long prior to the time the first white men reached the area. In general the artifacts consist of projectile points, various types of scrapers, knives, drills, hammerstones, sinkers, pendants, grinding stones and pestles, stone pipes, bone awls and points, bone flaking tools, gaming pieces, and beads. While carrying on his excavations, Daugherty also tested a site in the Lind Coulee where materials attributable to the Paleo-Indian occur. The site is outside the reservoir basin but is along the course of lateral and distribution-system canals, and as Lind Coulee is to be used as a wasteway for them the archeological remains will ultimately be destroyed.

A party under the direction of Samuel J. Tobin was excavating in a large rock shelter in the Equalizing Reservoir basin southwest of the town of Grand Coulee, Wash., at the start of the fiscal year. The work was carried on through July. Evidence obtained there was that the shelter was not a regular dwelling place but rather a spot where small parties probably camped from time to time. Three distinct levels of occupation were found, but apparently no great length of time intervened between each level, and the materials suggest that the same cultural group was involved throughout. The chief significance of the shelter is that a considerable amount of dry material such as is rarely found in open sites was obtained. Included in it are cordage, fragments of bow staves, arrow or spear shafts, textile fragments, matting, and pieces of basketry. Nonperishable artifacts are projectile points, bone implements and beads, and shell beads. The rear wall of the shelter was decorated with pictographs, some made with white paint and others in red. Analysis of the dry materials should throw considerable light on that phase of the material culture of the people in the area. Present indications are that the shelter may well have been occupied by either the Nespelem or their eastern neighbors the Sanpoil. Although contact objects were lacking below the surface, it is difficult to assign either a historic or a pre-Columbian age to the site.

The beginning of the fiscal year found a party under George A. Cheney digging in village remains along the Columbia River in the basin to be flooded by the Chief Joseph Reservoir. The work continued through July and August and into early September. In August Tobin's party was shifted to that project to assist in the investigations. The work in September was a cooperative effort, the Washington State Museum providing the necessary labor. At the end of the season 42 house pits located in 7 sites had been dug and accompanying trash mounds examined. Good information was obtained concerning the house type, and indications are that there was no particular village pattern. The structures do not seem to have been grouped, but at all the sites were strung along a terrace above the river in sheltered areas well back from the water. The artifacts

recovered consisted in the main of stone projectile points, blades, scrapers, hammers, pestles, pipes, choppers, and bowl fragments. The evidence in general appears to show that a single cultural level was represented at all the sites investigated. The area is one, however, where the river has done considerable scouring and shifting, and it is possible that older materials may have been destroyed. Though many of the data from the Chief Joseph Reservoir supplement those reported by earlier workers for the Upper Columbia-Grand Coulee Reservoir, there are some marked differences in certain artifact categories. Considerable light will be thrown on the archeology of that portion of the Columbia Basin when studies on the materials from the Chief Joseph Reservoir are completed.

On April 2 Joel L. Shiner started excavations at a site in the McNary Reservoir where a cultural layer had been discovered underneath a thick stratum of wind-deposited volcanic ash. The site, which was reported to the River Basin Surveys in January by Thomas R. Garth, represented a single occupation by a group of Indians having a simple culture and, except for the projectile points, very crude tools. Some 100 artifacts, including hammerstones and choppers in addition to the points, were found there. Large numbers of animal bones, many of them burned, and mussel shells were present in the midden. There were no indications, however, of any type of habitation. The culture probably represents a fairly early horizon in the Columbia Basin, but its proper place in the sequence for the area cannot be determined definitely until the volcanic ash is correlated with one of the known eruptions in the region or the burned bones have been dated by the carbon-14 method. Typologically the artifacts appear to be of respectable age.

At the end of April Mr. Shiner moved his party to the site of a former fishing village at the mouth of the Walla Walla River and carried on excavations there until the middle of May. Most of the digging was done in a midden deposit adjacent to the house remains, and a good series of artifacts was obtained. That is one of the few locations where enough material was found to make possible a satisfactory statistical study of the types of artifacts. The village apparently was occupied just prior to and during the first coming of the white man. A large number of burials had been present at one time, but the locality had been so thoroughly dug by local collectors that only scattered bones were found by Shiner's party.

During the year seven preliminary reports were completed and mimeographed at the Eugene office. Specimens from the various surveys were processed and cataloged and the photographs taken by the various parties were cataloged and filed. Because of the situation with respect to funds for the following fiscal year, it was necessary to close the Eugene office on June 30, 1951.

Georgia.—Field work in Georgia was carried on from a base of operations furnished by the University of Georgia at Athens. The main investigations during the year were of a survey nature. From November 14 to April 6 a reconnaissance was made of the area that will be inundated by the proposed Buford Reservoir on the Chattahoochee River. From April 23 to 28 a brief reconnaissance was made in the Clark Hill Reservoir, on the Savannah River, for the purpose of locating the remains of Fort Charlotte.

The Buford Reservoir basin occupies a large intermediate section of north-Georgia terrain lying between the Allatoona Reservoir area on the Etowah River and the north-Oconee drainage. The region is one that is virtually unknown archeologically, and it should contain significant data as far as a proper understanding of cultural developments in that part of Georgia is concerned. The preliminary survey located 46 sites in the area to be flooded. Included in the group are 29 that appear to represent a rather early prepottery period. There is some evidence that this group of sites may be somewhat older than the Stallings Island Prepottery Culture. A larger proportion of sites belong to the Woodstock period than was found to be the case during the investigations at the Allatoona Reservoir. The larger number of early sites indicates either that there was a sizable population in the district or that it was occupied over a long span of time. Extensive investigation of a number of the sites should give an answer in that respect. Two large previously unrecorded mounds were also noted, and some test digging was done in them. One gave evidence of having been erected over a small natural knoll, and the outlines of a small square house with a bench, bed, or throne at one end were found on its summit. The mound appears to represent a rather late and previously unknown complex which probably is pre-Lamar in age. The other mound apparently is one of the oldest artificial structures thus far found in Georgia. It differs from previously recognized types of eastern mounds in that it was not accretional and probably was not intended for burial purposes. Neither does it seem to have been a temple platform or domiciliary mound. Evidence obtained during the course of testing it and adjacent areas suggests that it probably belongs in the Forsyth Period, which falls into the general category known as the Burial Mound I Period. In many ways the mound suggests similarities to the well-known Swift Creek Mound. One postulation as to its function is that it may have been erected for ceremonial purposes even though there are no traces of a structure on its summit. A simple earthen platform without a structure would be the logical beginning in the development of the eastern temple-mound complex.

In addition to the pre-Columbian sites, the survey found a number attributable to the historic Cherokee. The latter are located for the

most part along the course of the old Federal Road, which passed through the Cherokee country to the Tennessee settlements. A brief study was made of the Vann House which was built between 1805 and 1813 to serve as an inn for people traveling along the Federal Road and stands on a high knoll overlooking the Chattahoochee River about $1\frac{1}{2}$ miles from the present town of Oscarville. It is one of the few Indian country taverns still standing. In its present form the structure shows several periods of enlargement, but the old original portion is readily discernible, and careful study of it should produce interesting data on the nature of the taverns of the period when built.

The search for the remains of Fort Charlotte, in the Clark Hill Reservoir area, showed that it was located on the South Carolina side of the Savannah River, but inasmuch as it will be inundated by the Clark Hill Reservoir, the dam for which is being built in Georgia, investigation of the site is considered to be a part of the Georgia project. Fort Charlotte, built in 1765 as one of the Colonial defenses against the Cherokee Indians, was seized on July 12, 1775, by South Carolina troops—one of the first overt acts of defiance by the rebellious Colonies against the British Government. It continued to be occupied by Colonial troops until the close of the Revolutionary War. Because of the lack of accurate information about the actual physical character of the fort and the fact that certain phases of its history correlate with Indian activities in that area, it is hoped that all remaining evidence pertaining to it can be retrieved from the site before it is inundated.

Kentucky.—During the period April 16 to May 18 Douglas W. Schwartz, field assistant, made a reconnaissance and carried on limited test excavations in the basin to be flooded by the proposed Celina Reservoir on the Cumberland River, in southern Kentucky. He located 24 archeological sites, representing a number of cultural periods; further work in the area probably would make it possible to establish a sequence for them. Excavations in six major sites have been recommended, but inasmuch as all of them are above the pool line there is no immediate urgency for their investigation. Their location is such, however, that after the reservoir is filled they may be subject to some wave action and will be easily available to unauthorized diggers. Consequently, plans should be made for additional work in that district.

The survey in the Celina area was done in cooperation with the University of Kentucky, which furnished Mr. Schwartz with the necessary transportation and provided him with office and laboratory space for working over his material. Dr. William S. Webb, head of the university's department of anthropology, assisted Mr. Schwartz in an advisory capacity.

Missouri Basin.—Activities in the Missouri Basin continued to be supervised and directed from the field headquarters at the University of Nebraska in Lincoln. Paul L. Cooper served as acting field director from July 1 until October 3, when he was made field director for the Missouri Basin program. The operations in the Missouri Basin shifted in character during the course of the year. Where previously most of the activities had been concerned with preliminary surveys, a larger number of excavating parties were sent into the field and greater emphasis was placed on the actual salvage of materials from sites that eventually will be inundated.

From July 3 to November 21 a two-man archeological survey party headed by Robert L. Shalkop made preliminary reconnaissance of the Apex, Brenner, Clark Canyon, Gibson, Kelley, Landon, Nilan, and Wilson Reservoirs in Montana; the Middle Fork and South Fork projects in Wyoming; and the Narrows in Colorado. The party also revisited the Keyhole Reservoir area in Wyoming and the Moorhead and Yellowtail projects whose basins occur in both Montana and Wyoming. The Shalkop party located and recorded 127 new sites. From August 12 to November 3 a two-man party led by George Metcalf investigated the area of the Fort Berthold Reservation in the Fort Garrison area in North Dakota, locating and recording 55 new sites. During October a two-man reconnaissance party under Richard Page Wheeler visited 10 potential reservoirs in the Niobrara subbasin in Nebraska. The party found a total of 41 archeological sites. Robert B. Cumming, Jr., and an assistant carried out a reconnaissance of the Ashton Reservoir area in the Lower Platte basin in Nebraska from November 7 to 15 and at the same time examined the sites of the Sargent, Woods Park, and Ashton Feeder canals. Since only one archeological site was found by Cumming's party, the area does not appear to have had much aboriginal occupation. This party also investigated an ossuary that had been uncovered at the Cushing dam site. During the period June 5 to 9, Franklin Fenenga and an assistant surveyed the Lovewell Reservoir area on White Rock Creek in northern Kansas and recorded six archeological sites. On June 19 Fenenga and an assistant proceeded to Wyoming and by the end of the fiscal year had made surveys at the Bull Creek, Smith, Buffalo Bill, Triangle Park, Willow Park, and Red Gulch Reservoirs. Five sites were found in the Bull Creek Reservoir and one large workshop area, which may be relatively old, was discovered in the Red Gulch Reservoir. None of the other projects visited contained archeological manifestations.

At the beginning of the fiscal year a party under the direction of Richard Page Wheeler was excavating at the Long site in the Angostura Reservoir basin on the Cheyenne River in South Dakota. That

work, which had been started in the previous year, continued until July 19, when the Wheeler party moved to the Boysen Reservoir area in Wyoming. The Long site is of particular interest because it represents one of the early hunting-culture occupations in the Plains area. The material from it is limited in quantity, but the blades, scrapers, and projectile points probably can be correlated with some of the types from other hunting cultures and will aid materially in filling in the gaps in present knowledge about the prehistory of the western Plains. Charcoal obtained from unprepared hearths has been dated by Dr. W. F. Libby by the carbon-14 method and shows that the occupation at the Long site was in the interval from $7,073 \pm 300$ to $7,715 \pm 740$ years before the present.

The Wheeler party began work in the Boysen Reservoir area on the Big Horn River near Shoshoni, Wyo., on July 20 and continued operations until September 20. During that period a number of sites were tested, and fairly extensive excavations were carried out at three locations. Most of the sites were in the open and proved to be the remains of camps rather than of villages. One small rock shelter was found to contain considerable refuse material as well as various types of artifacts and broken animal bones. One crevice burial, discovered on a butte top overlooking the reservoir area, presumably belonged to the historic period as a number of porcelain beads and a short coil of iron were sifted from the sand that lay directly below the crevice. Two of the sites examined probably are late prehistoric, while the others are older, perhaps considerably older. In addition to the excavating work, the Wheeler party photographed and sketched many petroglyphs and made extensive surface collections from numerous occupational sites, several of which were newly discovered while the digging was going on.

On June 21 Wheeler and his field assistant, J. M. Shippee, returned to Wyoming and started excavations at the only known pottery site in the Keyhole Reservoir area on the Belle Fourche River near Moorcroft. By the end of the fiscal year they had dug three shallow test areas across the site and recovered a series of artifacts consisting of stone and bone implements and a variety of potsherds. The apparent absence of dwellings of any kind, the shallowness of the middenlike deposits, and the character of the material found there suggest that the site, which covers approximately 30 acres, was a late prehistoric or protohistoric hunting camp. The work there had not yet progressed sufficiently to make possible the correlation of the remains with one of the historic tribes known to have inhabited that part of Wyoming.

The largest excavation operations in the Missouri Basin during the year were those in the Oahe Reservoir area on the main stem of the Missouri River near Pierre, S. Dak. A party under the supervision of Donald J. Lehmer was digging in the remains of a large

fortified village near the Oahe dam site on July 1 and continued at that location until October, when it was shifted to another fortified village a short distance farther downstream. At the first location, called the Dodd site, the remains of 21 earth lodges, 27 cache pits, and 16 miscellaneous features were uncovered. In addition, 8 test trenches and 27 test pits were dug. The Dodd site is of particular interest because of the fact that three types of houses were found there, and there was definite stratigraphic evidence for a sequence of the various forms. The latest structures at the location had been circular earth lodges, while the earlier ones were rectangular. There apparently were two types of rectangular earth lodge, the oldest being smaller and with a somewhat different pole arrangement than the later ones. Although it has not been established beyond question, it appears that the circular houses were those built by the Arikara, while the rectangular ones are attributable to the Mandan. Several thousand specimens, consisting of potsherds, stone, bone, shell, and metal artifacts, were found during the digging, and the analysis of that material should be a definite contribution to the archeology of the area. At the second location, known as the Phillips Ranch site, 5 earth lodges and 46 cache pits had been cleared and one test trench dug across the fortification ditch when weather conditions brought the activities to a close on November 26. The structures at the Phillips Ranch site were circular and appear to correlate with those of the final period at the Dodd site. Mr. Lehmer returned to the Phillips Ranch site on June 20 and resumed his excavation program. It was still under way at the close of the fiscal year. During the short period involved one house was completely cleared and another started. The presence of a palisade inside the fortification ditch surrounding the site was established, and the overburden from the northeast quadrant of the area was stripped away, revealing a number of features lying outside the houses.

Additional work in the Oahe area got under way in June when a party under the direction of Dr. Waldo R. Wedel, who was detailed to the River Basin Surveys from the U. S. National Museum, began excavations at the Cheyenne River village site, about 45 miles north of the Dodd site. The Cheyenne River village is one of the largest and best preserved of the fortified sites along the Missouri River, although a portion of it has been carried away by the encroaching stream. It apparently was occupied for a considerable period and probably contains several components. By the end of the fiscal year one earth lodge had been uncovered, the work on a second was nearly completed, and digging had started on a third. One cache pit had been cleaned and another located. Two test trenches excavated across the moat had shown that the original bottom was about 6 feet below the present surface. The artifact yield from the investigations was proving

highly satisfactory, and the artifacts should give a well-rounded picture of the material culture of the former occupants of the village, as well as indicating their relationship to other peoples in that portion of the Plains.

Early in July a party led by Thomas R. Garth started investigating historic sites in the area to be affected by the Fort Randall Reservoir in South Dakota. They spent a short time examining the site of old Fort Randall, across the river from Pickstown, but devoted most of the field season to work in the vicinity of Chamberlain. Extensive but unsuccessful efforts were made to locate the site of Fort Recovery, an early fur-trading post. The remains of other trading posts and military establishments were found, however, and partially investigated. Included in that group are Fort Hale, Fort Brule, Fort Lookout trading post, Fort Lookout military post, and the Whetstone Agency. At Fort Hale there was evidence of a large building that probably had been a trading post, two smaller buildings, and indications of a stockade. There was also evidence that there had been an earlier Indian occupancy of the site. At Fort Lower Brule the remains of a cabin 45 feet long were uncovered, and an 18-by-12-foot cellar was excavated. An abandoned well was also investigated, and about 30 "snow snakes," some of which were decorated with geometric and some with realistic designs, were recovered. "Snow snakes" were frequently made from bison ribs and in some cases were equipped with feathers stuck to two wooden pegs inserted in one end of the bone. Objects of this type were generally used in playing a rather simple game, which consisted of sliding them along the frozen crust or in a rut in the snow. The players chose sides, and when a "snake" outdistanced all on the other side it counted as a point. The remains of the fur-trading post, presumably adjacent to the military post, were found, and an Indian earth lodge was located while the area was being tested for the historic remains. The Garth Party also located 29 new Indian sites in the Chamberlain area.

Further work was started in the Fort Randall Reservoir area on June 3 when a party under the supervision of Robert B. Cumming, Jr., began excavations at Indian sites near the mouth of Platte Creek. Work was started at the Oldham site, an earth-lodge village, and at the close of the fiscal year the remains of one house had been uncovered and a second was in the process of excavation. Efforts to trace the fortification ditch that had surrounded the village had not been wholly successful because surface indications of a large part of that feature had been completely obliterated by cultivation. However, it was hoped that subsequent digging would make it possible to follow its entire course.

At the beginning of the year a party under the direction of G. Ellis Burcaw was excavating at the Rock Village located in the Gar-

rison Reservoir basin, near Hazen, N. Dak., a few miles above the dam site. Rock Village was reputedly occupied in the late eighteenth century by the Hidatsa. During the field season, which terminated November 3, five house floors had been uncovered and a number of other features investigated. A party under the direction of Donald D. Hartle resumed work at that location early in June. Additional house floors were being uncovered and a number of cache pits had been cleaned of their accumulated debris. The artifact yield was proving satisfactory and the specimens should add to the picture of the Plains culture as a whole. Rock Village is particularly interesting because it presumably was the most northerly of the fortified earth-lodge villages belonging to the period preceding the replacement of aboriginal material culture by trade goods obtained from the white man.

A second party, under the direction of G. H. Smith, was sent to the Garrison Reservoir in June to study the site of Fort Stevenson, one of the important military posts in that area during the period 1867 to 1883. The post was located a few miles above the dam site on the left side of the Missouri River. By the end of the year the foundations of the post hospital had been traced and excavations had been started on the site of the south barracks. There is considerable documentary information about Fort Stevenson, but knowledge of the post will be considerably broadened by the study of its actual location and remains.

At the beginning of the fiscal year excavations were being conducted at the Tiber Reservoir on the Marias River in Montana by a party under the supervision of W. D. Enger. Two of the sites investigated were occupation levels attributable to a simple hunting culture. They were characterized for the most part by hearths; charcoal; bones from bison, deer, and smaller mammals; and scattered chips of stone with an occasional artifact. The cultural levels began approximately 2 to 4 feet beneath the present surface, and in one of them a rock-ringed hearth about 2 feet in diameter was found $7\frac{1}{2}$ feet below the surface. The yield from both sites was small, but there is sufficient evidence to indicate that the area was not heavily populated and that the people were dependent for the most part on the hunt for their subsistence. Other sites examined, but not extensively dug, included tipi-ring clusters, bison kills, and surface camp sites. Sites such as that containing the deeply buried hearth may contribute important information on the rate of deposition in the area in question. When materials from the low level are correlated with those from other districts, it may be possible to determine the lapse of time since the fire pits were built and used.

Paleontological and geological investigations were continued in the Missouri Basin during the year. In the summer of 1950 a party under Dr. Theodore E. White explored Tertiary deposits in reservoir

areas in Montana and North Dakota and Cretaceous deposits in South Dakota. Work in the Lewis and Clark and Broadwater Counties in Montana where the Tertiary stratigraphy has been imperfectly known since its discovery in 1904 by the late Dr. Earl Douglass definitely established the presence of Lower and Middle Oligocene and Lower and Middle Miocene in that area. In North Dakota the investigations demonstrated that the Cannonball Marine member of the Fort Union formation has a much greater areal distribution than was formerly supposed. Other activities consisted of rapid surveys of proposed reservoir projects in Nebraska and Colorado. Investigations in Montana were resumed in June of 1951.

Laboratory activities at the field headquarters in Lincoln during the year included the processing and cataloging of specimens; the processing of records, including the indexing and filing of photographs; and the preparation and mimeographing of preliminary reports for distribution to the cooperating agencies. The specimens processed, numbering 84,255, came from 371 sites distributed over 18 reservoirs and other projects. In all, 11,764 reflex copies of records were made. Color transparencies totaling 651 were cataloged. Black-and-white photographic negatives numbering 1,707 were made, and 7,507 contact prints were processed. In addition, 197 8-by-10" enlargements were made. The drawings, tracings, and maps prepared for use in the various reports numbered 469.

Several exhibits were prepared interpreting the salvage program and the prehistory of the Missouri Basin area. One of them was displayed at the Eighth Conference for Plains Archeology, while another was placed in the windows of the Surveys' quarters in downtown Lincoln. A series of lantern slides illustrating the salvage program, particularly with respect to Nebraska, for use in an automatic projector, was prepared in cooperation with the University of Nebraska State Museum and was installed in the latter institution.

G. Ellis Burcaw, archeologist, was in charge of a field party excavating at the Rock Village in the Garrison Reservoir, N. Dak., at the start of the fiscal year. He continued his activities there until late in October and returned to the field headquarters at Lincoln on November 3 where he worked on his field report covering the summer's activities.

Paul L. Cooper, field director, devoted most of his time to management problems and general supervision of the field office and laboratory. He made numerous trips to inspect and consult with field parties and served in an advisory capacity to the Region Two office of the National Park Service at Omaha, Nebr., in the matter of preparing agreements for cooperative projects carried on by State and local institutions in the Missouri Basin.

Robert B. Cumming, Jr., archeologist, served as laboratory supervisor at the Lincoln headquarters from July 1 to November 6. During such times as the director was absent from the office, Mr. Cumming assumed administrative responsibility for the Lincoln office. After November 6 Mr. Cumming took over the duties of a field archeologist, conducting surveys in the Ashton Reservoir area and carrying on excavations in the Fort Randall Reservoir basin. During the winter months he wrote a preliminary report on the results of his survey work and assisted with the preparation of a preliminary report on the Oahe Reservoir. He also prepared a report on the physical anthropology of skeletal material excavated at the Massacre Creek site, Nebr., by the Nebraska State Historical Society, a cooperating institution. At the close of the year he was supervising the excavations at the Oldham site near Platte, S. Dak.

Walter D. Enger, Jr., archeologist, was engaged in a series of excavations at the Tiber Reservoir on the Marias River in Montana at the beginning of the fiscal year. The party under his supervision continued its activities until September 16, when it returned to the Lincoln headquarters.

Franklin Fenenga, archeologist, reported to the headquarters at Lincoln, Nebr., on October 26 and served as laboratory supervisor from November 6 to June 1, when he was assigned to duty in the field. Early in June he made a survey of the Lovewell Reservoir area in Kansas and in the latter part of the month made a preliminary reconnaissance of six potential reservoir areas in Wyoming. During the winter months in Lincoln he wrote preliminary archeological reconnaissance appraisals of the Sun River basin and the Jefferson River basin which were issued in mimeograph form. He also prepared survey reports for the following reservoir projects: Keyhole, Yellowtail, Narrows, Moorhead, Fort Randall, and Lovewell. In addition, Mr. Fenenga wrote "A Historical Analysis of Anthropological Interests in the Psychological Sciences," for publication in the Proceedings of the Nebraska Academy of Sciences. In November Fenenga was elected editor of the Plains Conference News Letter.

Thomas R. Garth, archeologist, joined the River Basin Surveys on July 2 by transfer from the National Park Service. On July 17 a party under his supervision began a series of investigations of historic sites in the Fort Randall area. That work continued until late in October, when he turned his attention to a survey of the area in the vicinity of Chamberlain, S. Dak., for the purpose of locating Indian sites. He completed his reconnaissance and returned to the Lincoln office on November 7. On November 27 he was detailed to the National Park Service to complete reports on work he had previously done at the Whitman Mission and Fort Walla Walla in Washington.

He returned to duty with the River Basin Surveys on February 27, when he prepared a report on the results of his activities in the Fort Randall area.

Donald D. Hartle worked at the Oahe Reservoir as assistant to Donald J. Lehmer from the beginning of the fiscal year until December 1. During February and March he was employed on a Texas project. On April 17 he was appointed archeologist and from then until June 1 assisted in the laboratory at Lincoln. He then proceeded to the Rock Village site in the Garrison Reservoir, N. Dak., where he started a series of excavations which were still under way on June 30.

Donald J. Lehmer, archeologist, was in active supervision of the excavations at the Oahe Reservoir in South Dakota from July 1 until December 1. From the latter date until March he worked at the Lincoln office preparing the report on the results of his investigations at the Dodd site. In March he was transferred from the Missouri Basin headquarters to a project in Oklahoma, where he remained until the first of June, when he returned to the Lincoln headquarters. On June 20 he proceeded to the Oahe Reservoir and resumed excavations at the site where he was working when the field season ended the previous November. That work was continuing at the end of the fiscal year. While at Lincoln Mr. Lehmer completed a paper giving preliminary descriptions of the pottery types found at the Dodd site.

George Metcalf, field and laboratory assistant, was at the Angostura Reservoir in South Dakota assisting Richard Page Wheeler at the beginning of the fiscal year. On July 10 he returned to the Lincoln office, where he worked on material obtained during the course of excavations at the Medicine Creek Reservoir. On August 12 he proceeded to the Garrison Reservoir and joined the party under G. Ellis Burcaw. From August 22 until October 18 he carried on a reconnaissance of the area around the Fort Berthold Indian Reservation and located and recorded 55 sites, including historic buildings, the remains of earth-lodge villages, camp areas, deeply buried hearths, tipi-ring sites, burial sites, and one reputed battleground. After completing the survey he remained at the Rock Village excavation assisting Mr. Burcaw until the end of the field season, when he returned to Lincoln. During the winter months he assisted in the processing and analysis of materials from the various excavations and helped to prepare sections of some of the reports on the previous season's work. On June 1 he left Lincoln for the Garrison Reservoir to assist in the work at the Rock Village. At the end of the fiscal year he was continuing his activities at that location.

James M. Shippee, field and laboratory assistant, was at the field headquarters in Lincoln until July 17, when he left to join the excavating party at the Angostura Reservoir in South Dakota. He assisted in the activities there and accompanied the party when it moved to

the Boysen Reservoir in Wyoming, returning with it to Lincoln in September. During the period September 28 to October 30 he assisted in the survey in the Niobrara River subbasin in Nebraska and from November 7 to 15 aided in the examination of the Ashton Reservoir area and the region adjacent to the Sargent, Woods Park, and Ashton Feeder canals. He also assisted in the salvage of the burials uncovered by activities at the Cushing dam site. During the winter months he devoted his time to the restoration of pottery vessels from the Boysen and Oahe Reservoirs and assisted in other laboratory duties. On June 21 he accompanied the excavating party that was sent to the Keyhole Reservoir in Wyoming and was occupied there at the end of the fiscal year.

George H. Smith joined the River Basin Surveys staff as archeologist on May 2. Until June 4 he devoted his time to a study of the problems centering about historic sites in the Fort Randall, Oahe, and Garrison Reservoirs, and in familiarizing himself with the work already accomplished in those areas. He also made a quick trip to the Oahe and Garrison Reservoirs in company with M. J. Mattes and R. H. Mattison, historians of the National Park Service. On June 11 a party under his supervision began excavations at the site of Fort Stevenson, and at the close of the fiscal year he was still engaged in that activity.

At the beginning of the year Richard Page Wheeler, archeologist, was in charge of a party excavating at the Angostura Reservoir in South Dakota. In July he and his party moved to the Boysen Reservoir in Wyoming, where they carried on excavations until September 20. Wheeler then returned to the headquarters at Lincoln and from September 28 through October 30 directed the survey of 10 potential reservoir sites in the Niobrara River subbasin in northern Nebraska. Returning to the field headquarters, he spent the winter months completing his report on the Niobrara survey and working on detailed technical reports on his investigations in the Angostura and Boysen areas. On June 21 he left for the Keyhole Reservoir near Moorcroft, Wyo., where he began a series of excavations which were actively under way at the end of the fiscal year. In April Mr. Wheeler was elected chairman of the anthropology section of the Nebraska Academy of Sciences to serve for 1952.

On July 1 Dr. Theodore E. White, paleontologist, was investigating deposits in the Canyon Ferry Reservoir. From there he proceeded to the Garrison Reservoir and subsequently to the Fort Randall Reservoir. At all three locations he collected fossils and continued his studies of the geology of the various areas. From September 22 to 29 he made a rapid survey of 10 proposed reservoir projects in the Niobrara River subbasin in Nebraska. The completion of that task in so short a time was made possible through the cooperation of Morris

Skinner of the Frick Laboratories who is thoroughly familiar with the area. From October 8 to 14 Dr. White examined Pliocene deposits in the Bonny Reservoir in northeastern Colorado. From November until June he was engaged in work elsewhere. Returning to the Missouri Basin on June 17, he proceeded to the Canyon Ferry Reservoir in Montana to continue his search for fossils. Nearly 100 specimens were collected, including forms previously unknown from the area. Those from the Oligocene deposits consisted of marsupials, insectivores, rodents, and small artiodactyls. The larger animals, such as the rhinoceroses, are represented only by fragments. The material obtained from the Miocene deposits consists of large oreodonts, beavers, rabbits, and small rodents. While at the Lincoln office Dr. White prepared a paper, "Observations on the Butchering Technique of Some Aboriginal Peoples," which was presented before the Eighth Annual Conference for Plains Archeology held at Lincoln late in November.

Oklahoma.—During the fiscal year both surveys and excavations were carried on in Oklahoma. From July 1 to August 10 Leonard G. Johnson and James G. Smith, field assistants, made a reconnaissance of the Gaines Creek Reservoir on Gaines Creek, a tributary of the South Canadian, in eastern Oklahoma. They located 52 archeological sites, most of which indicate temporary occupation despite the fact that at two locations there were mounds, and at other places villages seemed to have existed. Most of the sites in the Gaines Creek area were found on high ground above the high-water mark, but a number of those that will be flooded appear to be of some significance, and excavations have been recommended for six of them. In addition to the aboriginal remains, the former location of one historic settlement, North Fork Town, was established. The Gaines Creek Reservoir constitutes part of an alternate plan that has been prepared for that area. One plan calls for a single large reservoir to be known as the Eufaula. The other calls for three smaller projects which in the main will inundate approximately as large an area as the one reservoir. In view of that situation the surveys have been carried on from the standpoint of the three smaller reservoirs but extending the investigations sufficiently beyond their limits to take in the one large project. The other two smaller reservoirs, the Canadian and the Onapa, were surveyed during previous years. At that time the Canadian was found to involve 41 archeological sites and the Onapa 25. With the results of the Gaines Creek survey, it now is evident that a total of 118 sites will be included in the Eufaula basin if the one large project is carried through. If only one or two of the smaller reservoirs are completed, the archeological salvage needs will, of course, be less.

After completing their studies at the Gaines Creek project, Johnson and Smith proceeded to the Optima Reservoir area on the North Canadian (Beaver) River in Texas County. The dam for the project is to be erected just above the confluence of the North Canadian and Coldwater Creek and will flood areas along both streams. Three sites were found along the North Canadian and one along Coldwater Creek. In all cases they were found to be above the high-water line, and there is no urgency with respect to excavating them. Site 3 lies at the upper end of the basin that will be flooded along the North Canadian, and investigation at some future date has been recommended.

The excavations made in Oklahoma were in the area to be flooded by the Tenkiller Ferry Reservoir on the Illinois River near Tahlequah. Some testing was done at two locations, but most of the work was at a third, known as the Cookson site, where a party under the direction of Donald J. Lehmer dug 6 houses, 4 graves, 2 hearths, and 31 cache pits. Two components were isolated. The early one was characterized by rectangular houses with four center posts and trench entrances, while the later was characterized by rectangular houses with two center posts and indications of a bench along the north wall. There was no evidence of an entryway for these houses. The projectile points accompanying the early horizon fall within the range that is considered typical of Archaic and early Woodland in the Southeast. They also are common in the material from the prepottery Grove Focus in northeastern Oklahoma. Associated potsherds indicate a ware similar to the utility forms from the Spiro components. The latter ware in itself cannot be limited to an early horizon, but the small amount found in the excavations of the early component suggests that pottery was just beginning to appear in the complex. Stone artifacts in the late horizon differ somewhat from those of the earlier. Slate hoes and double-bitted axes are absent and projectile points are predominately small. The pottery associated with the late horizon is a shell-tempered ware which usually is decorated. The total complex has certain similarities to Orr's Fort Coffee Focus, but it probably will warrant being set up as a separate focus. The houses of the early horizon are similar to those considered typical of the early Spiro component, while those of the late horizon are quite similar to those for the late Spiro component.

The work at the Tenkiller Ferry was completed at the end of May, and Mr. Lehmer returned to the Missouri Basin headquarters at Lincoln. Throughout the period of the activities in Oklahoma, both for the surveys and the excavations, Dr. Robert E. Bell, of the University of Oklahoma, aided the field parties in the capacity of a consultant, and the University of Oklahoma cooperated in the loan of equipment and in making office space available to the men when they were in Norman.

Pennsylvania.—Investigations in Pennsylvania consisted of two survey projects. During October a reconnaissance was made of the Conemaugh River Reservoir in Indiana and Westmoreland Counties and of the East Branch Reservoir on the Clarion River in Elk and McKean Counties. The dam for the Conemaugh Reservoir, situated near Tunnelton, is scheduled for completion by December 1951. The reservoir will flood approximately 21 miles of the Conemaugh River and 11 miles of one of its larger branches, the Black Lick Creek. Within the pool area eight archeological sites were located. Of this group only one was deemed worthy of further exploration and excavation. It covers about 10 acres and is located on one of the larger terrace bottoms above the river near an old fording place. An Indian trail, the Venango, is supposed to have crossed the river at that point. The East Branch Reservoir apparently is located in a district where there was little aboriginal occupation because no archeological sites were found there. This probably may be attributed to the fact that the reservoir will fill a narrow V-shaped valley which was not suitable for Indian inhabitation. The surveys in Pennsylvania were made by Ralph S. Solecki.

Texas.—The River Basin Surveys in Texas continued to operate from the base and headquarters furnished by the department of anthropology of the University of Texas at Austin. Robert L. Stephenson was in charge from July 1 until April 15, when he was granted an extended leave of absence. Edward B. Jelks then assumed direction of the project. During the fiscal year surveys were begun and completed in the Ferrell's Bridge Reservoir on Cypress Creek in northeast Texas and in the Granite Shoals Reservoir on the Colorado River in central Texas. Excavations were continued and brought to completion in two field sessions in the Lavon Reservoir on the East Fork of the Trinity River, while the first field session at Garza-Little Elm Reservoir on the Elm Fork of the Trinity resulted in the excavation of two sites and the brief testing of three others. Excavations were also started and brought to completion in three sites in the Falcon Reservoir on the Rio Grande. The excavation of two sites and testing of three others were completed in the Belton Reservoir on the Leon River in central Texas.

The excavations started the previous year in the Lavon Reservoir were completed on August 2, with recommendation for additional excavation to be undertaken during the spring of 1951. The work there included excavation of over 40 percent of the large circular pit in the Hogge Bridge site as well as several test squares and several deep-strata squares outside the pit. The purpose for which the pit was built is still unknown, but it was determined that the site is a pure component of the newly delineated Wylie Focus. This is a culture complex probably overlapping the latter part of Gibson aspect and

the early part of Fulton aspect times in the Caddoan area and is coeval with the Henrietta Focus of the southern Plains area. It is not a part of either of those complexes but apparently an independent culture in contact with both and dating probably between 1300 and 1500.

Excavations were started in three archeological sites in the Falcon Reservoir on February 9. Donald D. Hartle was appointed temporary field archeologist for this project, and, under the supervision of Mr. Stephenson, he dug two historic sites and one deeply buried site. No positive evidence of Indian occupation was found in the two historic sites, which consisted of two and four stone-house ruins, respectively. Both probably may be referred to the Early to Middle Spanish Colonial period in the area. In the prehistoric site, a bulldozer was used for half a day and an area 20 feet by 40 feet was uncovered to an average depth of 12 feet below the surface, exposing an extensive occupation area which was excavated by hand in arbitrary 6-inch levels to an additional depth of 18 inches. Large quantities of workshop refuse and 200 artifacts were recovered from the level. The stratigraphic profile provided by the 12-foot trench wall revealed two additional occupation levels at depths from the surface of approximately 4 and 7 feet, respectively.

In the Ferrell's Bridge Reservoir, E. O. Miller and E. H. Moorman conducted a survey from January 29 to February 16 and from April 9 to 21. During that survey 34 archeological sites were located and recorded. Five of them contain small artificial earth mounds; the remainder are open occupational areas. Six of the sites have been recommended for further excavation.

The Belton Reservoir, surveyed the preceding year and recommended for no further excavation, was later found to contain two previously unknown archeological sites meriting some investigation. Mr. Miller and Mr. Moorman, who had located the sites, spent the periods December 11 to 13 and February 28 to March 2 in brief excavations of the Urbantke site and the Grimes-Houy site. In addition, they made extensive tests in three other nearby sites. It was found that the Urbantke site contained considerably more pottery than most of the sites in the area. The artifact analysis showed considerable similarity to the three rock shelters excavated the previous year in the Whitney Reservoir area. The excavations at the Grimes-Houy site uncovered 10 burials, and analysis of the artifacts and site features indicates a relatively late date. It possibly was a Comanche burial site.

The second season of excavations at the Lavon Reservoir was begun on March 12 and continued until May 4. The work included further digging in the Hogge Bridge site and extensive excavations in the Branch and Campbell Hole sites. In order to determine quickly the stratigraphic profile involved in the large circular pits in those sites,

a bulldozer was used for a total of 22½ hours. This provided extensive stratigraphic trenches through the pit and the midden areas in the Branch and Hogge Bridge sites and one long exploratory trench in the Campbell Hole site. The use of a bulldozer for this work proved very satisfactory, and little material damage was done to the artifacts or the features encountered.

The first field session at the Garza-Little Elm Reservoir was begun on May 7 and continued until June 13. Extensive excavations were completed in the Lake Dallas and Ledbetter sites and brief tests were made at the Pease and Craft sites. One of the few large Archaic sites in this area, the Lake Dallas site, yielded artifacts that should be valuable in the integration of the Archaic complexes of northeast Texas. At the Ledbetter site—one of the most extensive local examples of the later agriculture-pottery period—an interesting group of artifacts was found that suggests contacts with both the Caddoan peoples to the east and the peoples who lived to the west and southwest.

At the Granite Shoals Reservoir, surveyed during February and March by Robert H. Humphreys, 12 archeological sites were located and recorded. They are all open occupational areas along the narrow valley of the Colorado River. None are extensive or deeply stratified, and since some information is on record from sites both upstream and downstream from this project no further investigations are recommended. Such evidence as was found during the reconnaissance and testing indicated that the Granite Shoals region probably was occupied by people of the Round Rock and Uvalde Foci over a period of many centuries.

Dr. Theodore E. White spent the first 2 weeks in April in the Austin laboratory identifying the faunal remains from the archeological excavations of the Whitney, Lavon, Belton and Falcon Reservoirs. During the remainder of April and the first week of May, he collected fossils from the Upper Cretaceous deposits of the Lavon Reservoir. He devoted most of May to investigations at the Garza-Little Elm Reservoir, where he located and collected several vertebrate specimens of Pleistocene age. They included a bison skull, a turtle, and a horse jaw.

When he was not in the field, Robert L. Stephenson, archeologist, devoted his time to analysis and study of the archeological materials from the Lavon and Whitney Reservoirs and in organizing and programming the work for the various field parties sent out from the Austin headquarters. He completed an article on "Culture Chronology in Texas," which was published in *American Antiquity*, and finished a paper, "The Hogge Bridge Site and the Wylie Focus," for publication in the same periodical.

Edward B. Jelks, archeologist, assisted Mr. Stephenson in the field and laboratory throughout the year until April 15, when he took

over supervision of the Texas project. He spent most of the remainder of the year in the field at the Lavon and Garza-Little Elm excavations. He prepared a "Field Manual for Beginners in Central Texas Archeology," which was mimeographed and distributed to amateur archeologists who had requested guidance. As a result of historical research undertaken to supplement archeological investigation at the Stansbury site in the Whitney Reservoir, he prepared a paper, "Indians of the Central Brazos Area," which was presented at the annual meeting of the Texas Historical Association on April 27.

E. O. Miller and E. H. Moorman served as field and laboratory assistants throughout the year. They participated in the investigations in the Lavon and Garza-Little Elm Reservoirs, began and completed the excavations in the Belton Reservoir, and carried on the survey of Ferrell's Bridge Reservoir. The remainder of their time was spent in the laboratory in Austin cataloging and tabulating the materials from the various field projects and preparing a report on their survey of the Ferrell's Bridge Reservoir.

As a result of the financial status of the River Basin Surveys' work in the Texas area, the Austin office was closed on June 30.

Virginia.—Field work in Virginia during the year included the survey of one reservoir area and the excavation of a number of sites in another. On July 1, Carl F. Miller was digging at a site immediately east of Clarksville, Va., on the east bank of the Roanoke River in the Buggs Island Reservoir. Stripping operations there had destroyed a large part of the site before information was received about the work under way. Consequently, it was possible to salvage material from only two small portions of the site. From those areas 77 burials with their accompanying artifacts were recovered, and various midden pits, as well as the remains of a rectangular structure, were uncovered. That project was completed early in August. On February 28, excavations in the Buggs Island area were resumed, and from then until June 20, digging was carried on at nine different sites. At one there was stratification showing that it was first occupied during the pre-ceramic times and had continued in use until about the middle of the ceramic period, when it was abandoned. Two of the sites investigated were on Occaneechi Island near Clarksville. One of them contained heavy cultural deposits consisting of both Indian and European materials. Unfortunately, there had been so much disturbance by the later occupation that it was difficult to obtain satisfactory evidence from it, although a good series of artifacts was found. The second site on the island was one of the largest thus far examined in the basin. Forty-four burials were found there representing all types from fully flexed to partial cremation. The burned floor area of a large rectangular structure measuring 35 by 15 feet was uncovered. The house had five distinct floor levels interspersed with layers of clean sand.

Whether that indicated five separate occupations of the structure or remodeling activities during the course of a long-continued tenancy is not known, but further study of the data obtained from the digging may throw light on the subject. The structure had been built over a number of burials, and after it was abandoned other graves were dug through the floor, showing that the site continued to be inhabited after the dwelling had burned. A number of the burials were accompanied by turtle carapaces, which undoubtedly were placed there as funerary offerings. They do not seem to have been used as food receptacles, for in every instance they were inverted. Possibly they may have had totemic significance and were placed with the dead to indicate that the individual was a member of the turtle clan. A good pottery series obtained from the site should fill certain gaps in the sequence for the area. The work on Occaneechi Island indicates that it was not the place where the village mentioned by Lederer, who visited it in 1670, was located and that previous identification of it as such was in error. The current investigations indicate that the Occaneechi village probably was on another island lying some distance downstream from the one that now bears that name.

It had been hoped that at two of the sites, where fluted points and other artifacts suggestive of the eastern variant of the Folsom complex had been picked up from the surface, some remnants of the deposits belonging to that period would still be intact. The excavations showed, however, that the sites had suffered extensive erosion and that the artifacts previously found there were simply float material that remained when the deposits were carried away. Additional work still remains to be done at the Buggs Island Reservoir. The survey was made at the Philpott Reservoir during the last week in June. The archeological manifestations found there are so closely related to those in the Buggs Island area that no additional work will be required. Materials gathered from the surface are so similar to those from Buggs Island sites that they could not be recognized if placed in the same collections.

West Virginia.—The only work done in West Virginia during the year was the brief survey made at the site of the new navigation lock at Morgantown. Examination of the area involved by the construction disclosed that practically no new lands will be inundated by the project. The water there is to be kept within the limits of the river channel, which has rather steep and confining banks. Railroads parallel the channel on both sides, and any archeological remains that may have been there at one time were long since destroyed. No further investigations are necessary at that project.

Cooperating institutions.—Various State and local institutions cooperated with the River Basin Surveys during the year. Space for field offices and laboratories for units of the Surveys were provided

by the Universities of Nebraska, Oregon, Georgia, and Texas. The Universities of Oklahoma and Kentucky furnished temporary bases of operations for the parties working in their States. The University of Oklahoma took over the responsibility for the excavation of sites in the Fort Gibson Reservoir, and the University of Georgia continued making surveys along the Flint River in the southern part of that State. The University of Missouri and the Missouri Archeological Society continued to make surveys in a number of proposed reservoir areas and carried on excavations in others. The University of Arkansas also made surveys and did some digging in reservoir areas in that State. In June, parties with which the River Basin Surveys were cooperating began excavations in the McNary Reservoir and at Lind Coulee in Washington. The McNary party came from the University of Washington at Seattle; that at Lind Coulee from the Washington State College at Pullman.

The program developed by the National Park Service late in the previous year whereby various scientific agencies carried on salvage work in proposed reservoir areas continued throughout fiscal year 1951. On the basis of agreements between the agencies concerned and the National Park Service, certain funds were made available to the agencies to help finance specified investigations. The River Basin Surveys served in a consultative and advisory capacity only in the carrying out of that program. Agreements were made, however, with the University of Nebraska, the Nebraska State Museum, the Nebraska State Historical Society, the University of Kansas, the University of South Dakota, the North Dakota Historical Society, the University of Wyoming, and the University of Montana for work in the Missouri Basin. Similar agreements were made with the University of Mississippi for a survey of the Grenada Reservoir in that State, with the University of Oklahoma for excavations at the Eufaula Reservoir, with the University of Texas for excavations at the Falcon Reservoir, with the Museum of New Mexico at the Chamita Reservoir, with the University of California for excavations at the Farmington Reservoir, and with the University of Washington for work in the McNary area. The final results of the work accomplished under those agreements will be published by the institutions concerned, but they will correlate with and augment the information obtained by the River Basin Surveys.

INSTITUTE OF SOCIAL ANTHROPOLOGY

(Report prepared by G. M. FOSTER)

General statement.—The objectives of the Institute of Social Anthropology are anthropological research on the community life of rural peoples of Latin America and the training of Latin American

nationals in the methods and principles of modern social anthropology. The purpose is to inform both the social scientist and layman in the United States concerning little-known peoples of other parts of the world and to build up in various Latin American countries a corps of professionally trained scientists and friends.

During the past year the Institute was financed by transfers of funds from the Department of State, totaling \$92,740, from the appropriation "International Information and Educational Activities, 1951." As in the previous year, long-term planning has been done on a very tentative basis because of budget uncertainties for the future. Nevertheless, a full program was maintained in all countries, and work on a short-term basis was initiated in Guatemala. The year in review has seen increasing interest on the part of the Institute in a more direct application of anthropological knowledge and techniques to the practical problems of social and economic change that face Latin American countries. Accordingly, for the first time an attempt was made to enlist Institute personnel in a common research problem in all four countries in which programs have been maintained for several years for the purpose of pointing up some of the types of contributions anthropologists can make to "action" programs of economic and social betterment in so-called underdeveloped areas. It was decided that an analysis of American-sponsored technical-aid programs, with a history of several years of successful operations, might reveal common operational problems, the solution of which might be facilitated by anthropological counseling. After reviewing a number of programs, it was decided that health centers developed by the Institute of Inter-American Affairs in cooperation with the Ministries of Health of México, Colombia, Perú, and Brazil would be the most satisfactory subjects. Two centers in each country, one urban and one rural, were selected, and during March and April the operations of these centers were studied, particularly in relationship to the basic cultures of the peoples served. A dual goal was envisaged: (1) that of determining, if possible, what may be the common factors that favor and factors that inhibit the introduction and acceptance of ideas and habits new to the ethnic groups in question; (2) that of pointing up difficulties in going projects, and making remedial suggestions. A 100-page mimeographed report was prepared, which outlined the theoretical basis for the work, described the work of health centers, discussed salient aspects of indigenous culture that were affected by this work, and made suggestions as to how utilization of anthropological knowledge would increase the effectiveness of such work. One hundred copies were sent to the Institute of Inter-American Affairs, and plans made to distribute additional copies to various national and international organizations carrying out a wide variety of technical-aid programs.

Major activities in each of the field offices, and in Washington, were as follows:

Brazil.—Drs. Donald Pierson, sociologist, and Kalervo Oberg, social anthropologist, continued their research and teaching activities in cooperation with the Escola Livre de Sociologia e Política in São Paulo. Dr. Pierson's administrative duties as dean of the graduate division occupied much of his time. In addition, he gave three courses in sociology and guided independent and graduate research. In February 1951, he directed an intensive course on rural life in Brazil, sponsored by several ministries of the state of São Paulo, to about 70 persons who are government employees and administrators in various offices. Dr. Pierson continued to develop plans for extensive social-science research as a part of the Brazilian Government's plan for economic and social development of the São Francisco River Valley. This planning came to a head with an offer from the National Commission of the São Francisco Valley to transfer \$27,000 to a fund to be directed by Dr. Pierson for intensive socioethnological study and analysis of the problems of industrialization and settlement in this enormous area.

Dr. Oberg returned to São Paulo in July 1950, via Lima, after a period of consultation in the United States. While in Lima he visited and consulted with Ozzie Simmons, Institute representative in that country. During the fall, and a part of the spring, he gave courses in anthropology as usual at the Escola. During March and April he carried out health-center investigations at Colatina, in the Rio Doce Valley, and Cametá, at the mouth of the Tocantins River in the Amazon basin. A lengthy report covering this work was submitted to the local offices of the Institute of Inter-American Affairs. In April Dr. Oberg represented the Smithsonian Institution and the United States Government in Rio de Janeiro at the Second Annual National Indian Week. At the end of the year plans were being completed to lend Dr. Oberg for a 6-week period to the Institute of Inter-American Affairs for additional anthropological work in Chonin, in Minas Gerais.

Colombia.—Because of the budgetary uncertainties it was necessary to discontinue the Colombian program in 1949. A new memorandum of understanding was agreed upon in November 1950 by the Ministry of Foreign Affairs of Colombia and the United States Department of State whereby it was agreed that future Smithsonian Institution activities in Colombia would be in collaboration with the Instituto Etnológico Nacional in Bogotá, directed by Licenciado Luis Duque Gómez, rather than with the Popayán branch of the Instituto, as in former years. Charles J. Erasmus joined the staff of the Institute of Social Anthropology in the fall of 1950 to take charge of this program. Mr. Erasmus has given a general course in ethnography at the Insti-

tuto Etnológico as a part of the regular curriculum of this organization. A number of Colombian towns and villages were surveyed for possible field work, and final decision was made on the village of Kota, about 20 kilometers to the north of Bogotá. This is a typical mestizo village of the Savanna of Bogotá, representative of much of rural Colombian life, and conveniently close to Bogotá so that short vacation periods as well as long field periods are possible. During March and April Mr. Erasmus devoted his time to the health-center research described in the introduction, working in the Ricuarte barrio of Bogotá, and in the Magdalena River port of La Dorada.

Guatemala.—Late in 1950, upon the request of Dr. Antonio Goubaud-Carrera, Guatemalan Ambassador to the United States, the temporary detail of an Institute ethnologist to Guatemala became possible. Accordingly, Richard N. Adams joined the staff, arriving in that country in December. In the seven months at his disposal Dr. Adams gave a general course in the Instituto de Antropología e Historia. A series of special lectures was also given to personnel of the Instituto Indigenista. Dr. Adams also supervised field research in several villages, including La Magdalena, near Guatemala City, in which the Central American Institute of Nutrition is carrying out long-range investigations. This work was designed to shed light on the cultural factor in a program aimed at bettering the nutritional and general health practices of the peoples concerned, and in gathering data applicable to similar projects in other Central American countries. Because of budgetary limitations it was, unfortunately, necessary to drop Dr. Adams from the Institute staff at the end of the fiscal year. Fortunately, it was possible to make arrangements for him to continue his Guatemalan work by means of a Department of State specialist grant.

México.—During the fall of 1950 Dr. Isabel T. Kelly, Institute representative, continued preparation of the second volume on the Tajin Totonac Indians, the first volume of which was sent to the printer in June 1950. In March 1951 she participated in health-center analyses, studying the Beatriz Velasquez Alemán Center in Mexico City, and that in the suburb of Xochimilco. Late in the winter she made a reconnaissance trip through the Sierra de Puebla and selected the highland Totonac village of San Marcos Eloxochitlán for field work. In April a 3-month period of field work was initiated, in which five students from the Escuela Nacional de Antropología participated. This study of a highland Totonac community will, among other things, in conjunction with the lowland Tajin Totonac afford data on the relationship of environment to culture.

Dr. William Wonderly joined the Institute in March 1951 to teach linguistics at the Escuela Nacional. This was the first time that linguistics had been taught in México under Institute of Social Anthro-

pology auspices since Dr. Stanley Newman left three years ago. Two courses were given, one on general linguistics and the other on morphology and syntax.

Perú.—Ozzie G. Simmons continued his teaching activities at the Instituto de Estudios Etnológicos in Lima. Field studies, in which several Peruvian students participated, were initiated in the non-Indian village of Lunahuaná, in the upper Cañete Valley, south of Lima. This work, when completed in 1951, will still further broaden our knowledge of contemporary Peruvian rural culture, which already includes the villages of Moche (Gillin), Sicaya (Tschopik, Muelle, and Escobar), and Virú (Holmberg and Muelle). During April Mr. Simmons carried out his part of the health-center investigations, studying the Lima center in Rimac barrio, and the center in Chimbote, on the north coast of Perú.

Washington.—Dr. Gordon R. Willey served as Acting Director of the Institute until September, at which time he went to Harvard University as Bowditch Professor of Mexican and Central American Archeology and Ethnology.

Dr. George M. Foster returned in September from a year's field trip to Spain to resume duties as Director of the Institute. While in Spain, Dr. Foster worked with Dr. Julio Caro Baroja, director of the Museo del Pueblo Español in Madrid, making a general survey, based on printed sources and field studies, of Spanish ethnography. Dr. Foster's part of the work was oriented toward the historical and theoretical problems involved in the carrying of Spanish culture to the New World, and its assimilation with native American culture. This work was planned to give added depth and background to the continuing studies of Institute and cooperating Latin American personnel.

Dr. Foster made a month's trip in March to Guatemala, Colombia, and Perú, for the purpose of consulting with Institute field personnel, and appraising the new Guatemalan project as well as the newly opened Bogotá office. Consultations were also held with heads of the participating national institutions in all three countries. Dr. Foster spent much of the month of June in assembling the health center's report.

EDITORIAL WORK AND PUBLICATIONS

There were issued one Annual Report and two Bulletins (one a volume of the Handbook of South American Indians), and two Publications of the Institute of Social Anthropology, as listed below:

Sixty-seventh Annual Report of the Bureau of American Ethnology, 1949-50. ii+25 pp. 1951.

Bulletin 143. Handbook of South American Indians. Julian H. Steward, editor. Volume 6, Physical anthropology, linguistics, and cultural geography of South American Indians. xiii+715 pp., 47 pls., 3 figs., 18 maps. 1950.

Bulletin 144. The northern and central Nootkan tribes, by Philip Drucker. ix+480 pp., 5 pls., 28 figs., 8 maps. 1951.

Institute of Social Anthropology Publ. No. 11. Quiroga: A Mexican municipio, by Donald D. Brand, assisted by José Corona Núñez. v+242 pp., 35 pls., 4 maps. 1951.

Institute of Social Anthropology Publ. No. 12. Cruz das Almas: A Brazilian village, by Donald Pierson, with the assistance of Levi Cruz, Mirtes Brandão Lopes, Helen Batchelor Pierson, Carlos Borges Teixeira, and others. x+226 pp., 20 pls., 13 figs., 2 maps. 1951.

The following publications were in press at the close of the fiscal year:

Bulletin 145. The Indian tribes of North America, by John R. Swanton.

Bulletin 146. Chippewa child life and its cultural background, by Sister M. Inez Hilger.

Bulletin 147. Journal of an expedition to the Mauvais Terres and the Upper Missouri in 1850, by Thaddeus B. Culbertson. Edited by John Francis McDermott.

Bulletin 148. Arapaho child life and its cultural background, by Sister M. Inez Hilger.

Bulletin 149. Symposium on diversity in Iroquois culture. Edited by William N. Fenton.

No. 1. Introduction: The concept of locality and the program of Iroquois research, by William N. Fenton.

No. 2. Concepts of land ownership among the Iroquois and their neighbors, by George S. Snyderman.

No. 3. Locality as a basic factor in the development of Iroquois social structure, by William N. Fenton.

No. 4. Some psychological determinants of culture change in an Iroquoian community, by Anthony F. C. Wallace.

No. 5. The religion of Handsome Lake: Its origin and development, by Merle H. Deardorff.

No. 6. Local diversity in Iroquois music and dance, by Gertrude P. Kurath.

No. 7. The Feast of the Dead, or Ghost Dance at Six Nations Reserve, Canada, by William N. Fenton and Gertrude P. Kurath.

No. 8. Iroquois women, then and now, by Martha Champion Randle.

Bulletin 150. The modal personality of the Tuscarora Indians, as revealed by the Rorschach test, by Anthony F. C. Wallace.

Bulletin 151. Anthropological Papers, Numbers 33-42.

No. 33. "Of the Crow Nation," by Edwin Thompson Denig. With biographical sketch and footnotes by John C. Ewers.

No. 34. The water lily in Maya art: A complex of alleged Asiatic origin, by Robert L. Rands.

No. 35. The Medicine Bundles of the Florida Seminole and the Green Corn Dance, by Louis Capron.

No. 36. Technique in the music of the American Indian, by Frances Densmore.

No. 37. The belief of the Indians in a connection between song and the supernatural, by Frances Densmore.

No. 38. Aboriginal fish poisons, by Robert F. Heizer.

No. 39. Aboriginal navigation off the coast of Upper and Baja California, by Robert F. Heizer and William C. Massey.

No. 40. Exploration of the Adena Mound at Natrium, W. Va., by Ralph S. Solecki.

Bulletin 151. Anthropological Papers, Numbers 33-42—Continued

No. 41. The Wind River Shoshone Sun Dance, by D. B. Shimkin.

No. 42. Current trends in the Wind River Shoshone Sun Dance, by Fred Voget.

Bulletin 152. Index to Schoolcraft's "Indian Tribes of the United States," compiled by Frances S. Nichols.

Bulletin 153. La Venta, Tabasco: A study of Olmec ceramics and art, by Philip Drucker.

Bulletin 154. River Basin Surveys Papers. Inter-Agency Archeological Salvage Program. Numbers 1-6.

No. 1. Prehistory and the Missouri Valley Development Program: Summary report on the Missouri River Basin Archeological Survey in 1948, by Waldo R. Wedel.

No. 2. Prehistory and the Missouri Valley Development Program: Summary report on the Missouri River Basin Archeological Survey in 1949, by Waldo R. Wedel.

No. 3. The Woodruff Ossuary, a prehistoric burial site in Phillips County, Kans., by Marvin F. Kivett.

No. 4. The Addicks Dam site:

I. An archeological survey of the Addicks Dam basin, Southeast Texas, by Joe Ben Wheat.

II. Indian skeletal remains from the Doering and Kobs Sites, Addicks Reservoir, Texas, by Marshall T. Newman.

No. 5. The Hodges site:

I. Two rock shelters near Tucumcari, N. Mex., by Herbert W. Dick.

II. Geology of the Hodges site, Quay County, N. Mex., by Sheldon Judson.

No. 6. The Rembert mounds, Elbert County, Ga., by Joseph R. Caldwell.

Appendix. List of River Basin Surveys reports published in other series.

Bulletin 155. Settlement patterns in the Virú Valley, Perú, by Gordon R. Willey.

Institute of Social Anthropology Publ. No. 13. The Tajin Totonac: Part 1. History, subsistence, and technology, by Isabel Kelly and Angel Palerm.

Institute of Social Anthropology Publ. No. 14. The Indian caste of Peru, 1795-1950: A population study based upon tax records and census reports, by George Kubler.

Institute of Social Anthropology Publ. No. 15. Indian tribes of Northern Mato Grosso, Brazil, by Kalervo Oberg. With appendix by Marshall Newman on "Anthropometry of the Umotina, Nambicuara, and Iranxe."

Institute of Social Anthropology Publ. No. 16. Penny capitalism: A Guatemalan Indian economy, by Sol Tax.

Publications distributed totaled 22,377 as compared with 19,116 for the fiscal year 1950.

LIBRARY

One hundred twenty-three volumes were added to the library of the Bureau, bringing the total accessions as of June 30, 1951, to 34,961.

ARCHIVES

Manuscript material has been made available to research workers both in the office and through the furnishing of microfilm copies. The

major project accomplished during the year was the classification of the great collection of Iroquois material assembled by J. N. B. Hewitt.

The addition of five new metal storage cabinets greatly improved the conditions for protecting the manuscripts. Since more cabinets could not be obtained, another method of storage for the material in the archives annex was developed. Using heavy cardboard filing boxes, graded to size, does away with the wrappings formerly used and makes the material much easier to consult.

A method of preserving the rare Indian drawings in the collections by the process of lamination was adopted on advice from the preservation division of the National Archives.

Through the librarian of the Geological Survey, the collections have been enriched by the addition of the original catalog of the photographic negatives made on the famous Grand Canyon expedition of J. W. Powell. This list in Major Powell's handwriting, removes all doubt as to the identification of the pictures made by J. K. Hillers and E. O. Beaman. The original negatives have long constituted an important sector of the Bureau's Indian photographic archives.

COLLECTIONS

Acc. No.

185184. Archeological materials and skeletal remains of 7 individuals from the Addicks Reservoir, on South Mayde Creek in Harris County, 16 miles west of Houston, Tex., collected 1947 by Joe Ben Wheat, River Basin Surveys.
187265. Archeological materials from 12 sites in Tenkiller Ferry Reservoir area, located on the Illinois River about 13 miles above its confluence with the Arkansas River and about 7 miles northwest of Vian, in Sequoyah and Cherokee Counties, Okla., collected by David J. Wenner, Jr., River Basin Surveys.
187266. Archeological materials surface-collected from 2 sites in the Hulah Reservoir area on Caney River about 15 miles northwest of Bartlesville, near Hulah, northeastern Osage County, Okla., collected in 1947 by David J. Wenner, Jr., River Basin Surveys.
187267. Archeological materials surface-collected from 17 sites in the Fort Gibson Reservoir area, a Corps of Engineers water-control project on the Grand (Neosho) River, beginning 7.7 miles above its mouth and including portions of Wagoner, Cherokee, and Mayes Counties, Okla., collected in 1947 by David J. Wenner, Jr., River Basin Surveys.
187539. Archeological material from Postcontact Eskimo sites on Itkillik Lake and at Anaktuvuk Pass in the Brooks Range, northwestern Alaska, collected during the summer of 1949 in the Colville Basin by Arthur Bowsher and Dr. George Llano.
187540. Archeological material, mainly stonework, from the West Fork Reservoir, Lewis County, W. Va., collected in April 1948 by Ralph Solecki, River Basin Surveys.
187541. Archeological material from Bluestone Reservoir area, on the New River, 100 miles south of Charleston, between Hinton and Narrows, W. Va.; in Giles County, Va.; Monroe and Summers Counties, W. Va., collected March-May 1948 by Ralph S. Solecki, River Basin Surveys.

- Acc. No. 187542. Archeological materials from a mound at Natrium, Marshall County, W. Va., collected by Ralph S. Solecki during December 1948 and January 1949.
187742. Approximately 80 fossil mammals from the Boysen Reservoir area of Wyoming, the Canyon Ferry Reservoir area of Montana, and the Garrison Reservoir area of North Dakota, collected by Dr. T. E. White, River Basin Surveys.
188194. (Through Dr. F. H. H. Roberts, Jr.) 4 specimens, including Creodont skull from the Paleocene of North Dakota, Plesiosaur skull, fish and a marine turtle from the Pierre Cretaceous, collected by Dr. T. E. White at the Fort Randall Reservoir area in South Dakota, River Basin Surveys.
188807. (Through Dr. Paul L. Cooper) 4 fresh-water mussels from Hitchcock County, Nebr., River Basin Surveys.
189103. Archeological material, mostly potsherds, from Utivé, Panamá, collected by Dr. Matthew W. Stirling.
189439. Archeological materials from Round Bottom site on the Travis farm about 3½ miles south of Moundsville, Marshall County, W. Va., collected, with the exception of 3 celts presented by Mr. Travis, by Ralph S. Solecki during December 1948 and January 1949.
191092. 23 lizards, 6 snakes, 13 frogs, 10 marine invertebrates, and insect specimens from Panamá, collected by Dr. Matthew W. Stirling and party during the 1951 Smithsonian Institution-National Geographic Society Expedition.
188344. (Through Dr. Henry B. Collins, Jr.) Approximately 250 spiders, 27 springtails, and 1 parasitic wasp from Cornwallis Island, Canadian Arctic, collected by Dr. Collins in summer of 1950 on National Museum of Canada-Smithsonian Institution Expedition.

MISCELLANEOUS

During the year Dr. Frances Densmore, Dr. John R. Swanton, and Dr. Antonio J. Waring, Jr., continued as collaborators of the Bureau.

Information was furnished during the year by members of the Bureau staff in reply to numerous inquiries concerning the American Indians, past and present, of both continents. Requests from teachers of primary and secondary grades and from Scout organizations continue to increase and indicate a rapidly growing interest in the American Indians throughout the country. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Respectfully submitted.

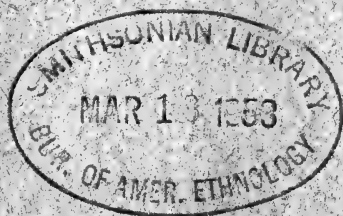
M. W. STIRLING, *Director.*

Dr. A. WETMORE,

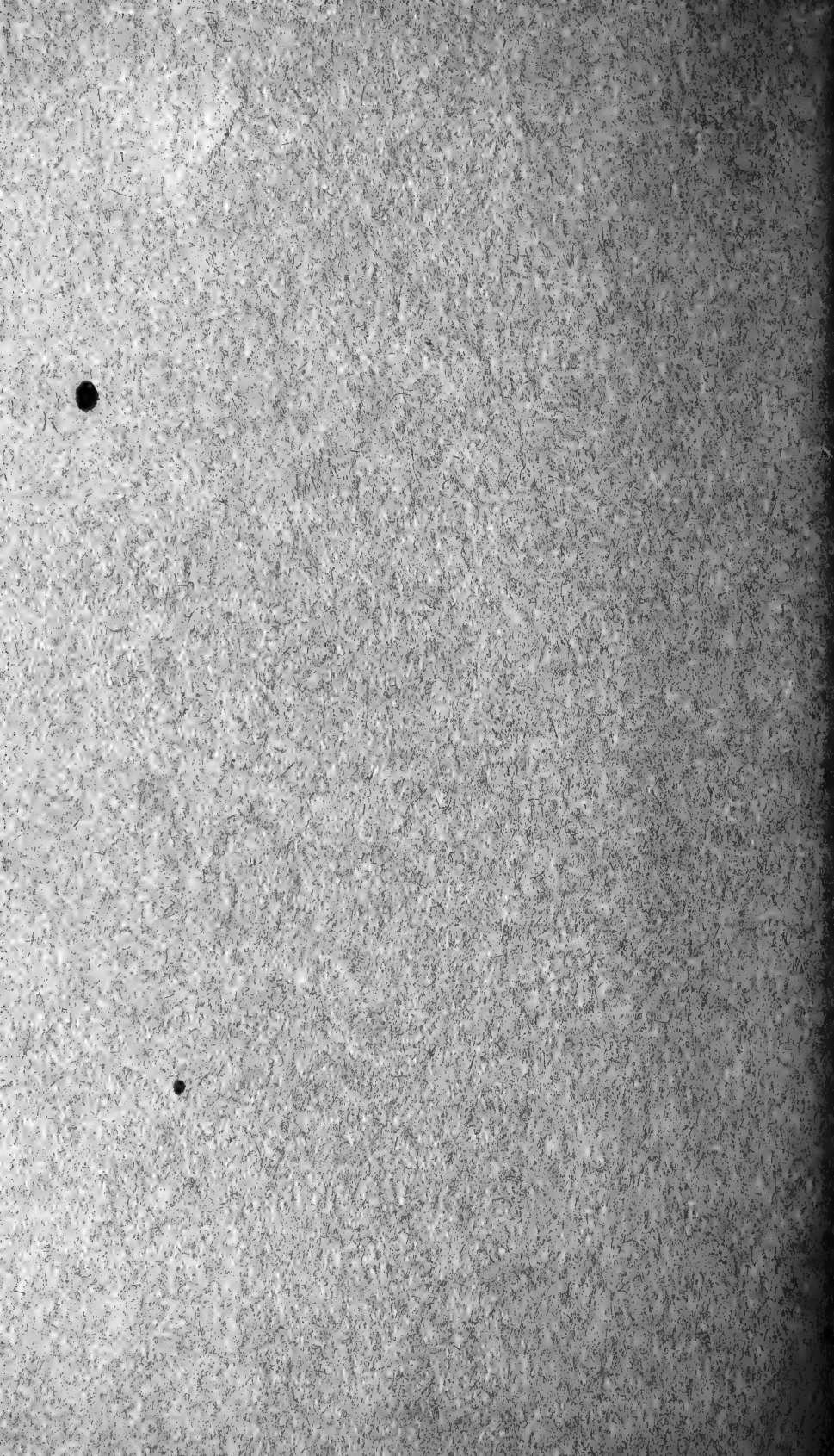
Secretary, Smithsonian Institution.

Sixty-ninth Annual Report
of the
BUREAU OF AMERICAN
ETHNOLOGY

1951-1952



SMITHSONIAN INSTITUTION
WASHINGTON
D. C.



SIXTY-NINTH
ANNUAL REPORT OF THE
BUREAU OF
AMERICAN ETHNOLOGY

TO THE SECRETARY OF THE
SMITHSONIAN INSTITUTION

1951-1952



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1953

BUREAU OF AMERICAN ETHNOLOGY

June 30, 1952

Director.—MATTHEW W. STIRLING.

Associate Director.—FRANK H. H. ROBERTS, Jr.

Anthropologists.—H. B. COLLINS, Jr., PHILIP DRUCKER.

Ethnologist.—JOHN P. HARRINGTON.

Collaborators.—FRANCES DENSMORE, JOHN R. SWANTON, A. J. WARING, Jr.

Scientific illustrator.—E. G. SCHUMACHER.

INSTITUTE OF SOCIAL ANTHROPOLOGY

Director.—G. M. FOSTER, Jr.

Anthropologists.—*Brazilian office:* DONALD PIERSON, KALERVO OBERG; *Colombian office:* CHARLES J. ERASMUS; *Mexican office:* ISABEL T. KELLY; *Peruvian office:* OZZIE G. SIMMONS.

RIVER BASIN SURVEYS

Director.—FRANK H. H. ROBERTS, Jr.

Archeologists.—RALPH D. BROWN, JOSEPH R. CALDWELL, PAUL L. COOPER, ROBERT B. CUMMING, Jr., FRANKLIN FENENGA, DONALD D. HARTLE, EDWARD B. JELKS, DONALD J. LEHMER, JOHN E. MILLS, JOEL L. SHINER, G. HUBERT SMITH, RALPH S. SOLECKI, ROBERT L. STEPHENSON, RICHARD P. WHEELER.

Geologist.—THEODORE E. WHITE.

SIXTY-NINTH ANNUAL REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY

M. W. STIRLING, *Director*

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1952, conducted in accordance with the act of Congress of April 10, 1928, as amended August 22, 1949, which provides for continuing "independently or in cooperation anthropological researches among the American Indians and the natives of lands under the jurisdiction or protection of the United States and the excavation and preservation of archeologic remains."

Information was furnished during the year by members of the Bureau staff in reply to numerous inquiries concerning the American Indians, past and present, of both continents. The increased number of requests from teachers of primary and secondary grades and from Scout organizations indicates a rapidly growing interest in the American Indian. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

SYSTEMATIC RESEARCHES

Dr. M. W. Stirling, Director of the Bureau, devoted most of his time during the fiscal year to administrative affairs and to the preparation of manuscript on previous field studies in Panamá and southern México. During the year he prepared three reports for publication: "Stone Monuments of the Río Chiquito, México," "The Use of Jade in Aboriginal America," and "An Archeological Survey of Southern Veracruz, Tabasco, and Northern Campeche."

Dr. Frank H. H. Roberts, Jr., Associate Director of the Bureau and Director of the River Basin Surveys, devoted most of his time during the year to the management and direction of the River Basin Surveys. In August he went to Lincoln, Nebr., to inspect the Missouri Basin headquarters. From Lincoln, accompanied by Paul L. Cooper, field director, he proceeded to the Fort Randall Reservoir area near Chamberlain, S. Dak., and visited a number of archeological sites that were being excavated by field parties of the River Basin Surveys and also the excavations being conducted by the Nebraska State Historical Society. He also took part in a conference on local archeological problems held at the field camp of the University of Kansas party

which was excavating an Indian village site as part of the cooperative program of the National Park Service. From the Fort Randall area he proceeded to the Oahe Reservoir area north of Pierre, S. Dak., where he visited two River Basin Surveys excavating parties. From Pierre he proceeded to Cody, Wyo., in company with Dr. Waldo R. Wedel, curator of archeology, United States National Museum, to inspect an archeological site on Sage Creek where remains of early man had been found. The purpose of that trip was to assist in planning a series of investigations to be carried on there during the field season of 1952 as a cooperative project between the Smithsonian Institution and Princeton University. Returning to Pierre, Dr. Roberts held a number of conferences with staff members to discuss the plans and operations of the salvage program in that area. During the fall and winter months he made several trips to the Missouri Basin headquarters at Lincoln. In March he went to Columbus, Ohio, and delivered a lecture on "Early Man in the New World" before the Ohio State Historical Society at the State museum. He returned to Columbus in May to attend the annual meeting of the Society for American Archaeology and to take part in a symposium dealing with the carbon-14 method for dating archeological remains. During the year Dr. Roberts completed two manuscripts: "River Basin Surveys: The First Five Years of the Inter-Agency Archeological and Paleontological Salvage Program" and "The Carbon-14 Method of Age Determination," both of which were published in the 1951 Smithsonian Annual Report. During the year Dr. Roberts received the Viking Fund Medal and Award of the Wenner-Gren Foundation for Anthropological Research for his work in American archeology.

Dr. Henry B. Collins, anthropologist, continued his research on the Eskimo and other Arctic activities. Through arrangements with the National Museum of Canada, his assistant of 1950, William E. Taylor, returned to Cornwallis Island in the Canadian Arctic for further excavations. Mr. Taylor's collections, including Thule and Dorset culture materials, with notes and photographs, were received by Dr. Collins for inclusion in the final report on the Cornwallis Island work. Preliminary reports on the first two seasons' excavations on Cornwallis Island were published in the annual reports of the National Museum of Canada for the fiscal years 1949-50 and 1950-51. A general article, "The Origin and Antiquity of the Eskimo," summarizing the present evidence of archeology, physical anthropology, and linguistics, was published in the 1950 Smithsonian Annual Report. A paper on the present status of the Dorset culture, with special emphasis on new evidence from Greenland and Alaska, which was presented at the December 1951 meeting of the American Association for the Advancement of Science, will be included in a volume on American archeology

being published by the Wenner-Gren Foundation for Anthropological Research. At the meeting of the Society for American Archaeology in May 1952 Dr. Collins presented a paper summarizing and evaluating the results of radiocarbon dating in the Arctic in the light of the archeological evidence, and including an interpretation of the ancient Denbigh Flint Complex of Alaska, its Old World connections and age, and its relationships to Folsom, Yuma, and Eskimo. The paper will appear in the January issue of *American Antiquity*. An article on the progress of anthropology in 1951 was prepared for the *Encyclopaedia Britannica* and another on the Races of Asia for the *Encyclopaedia Hebraica*. He also edited *Science in Alaska*, a volume of selected papers presented at the First Alaskan Science Conference held in Washington in November 1950 under the auspices of the National Academy of Sciences-National Research Council. The volume was published by the Arctic Institute of North America and contains papers on Alaskan anthropology, agriculture, botany, geology and geography, geophysics, meteorology, public health, and zoology. Dr. Collins continued to serve as chairman of the directing committee supervising preparation of *Arctic Bibliography*, a comprehensive, annotated, and indexed bibliography of English and foreign-language publications in all fields of science relating to the Arctic and sub-Arctic regions of America, Siberia, and Europe. The bibliography is being assembled by the Arctic Institute of North America under contract with the Office of Naval Research with funds from the Departments of the Army and the Navy, and the Defense Research Board of Canada. At the end of the fiscal year material for a supplemental volume of about 900 pages was completed and ready for the printer. Proofreading continues on the initial six volumes of similar size now at the Government Printing Office.

At the beginning of the fiscal year Dr. John P. Harrington was in México engaged in studying the Maya language. On his return to Washington he completed the preparation of a grammar and dictionary of the Maya language, with the assistance of a Maya informant, Domingo Canton Aguilar, whom he brought to Washington for that purpose. He also completed a monograph on the numeration system of the Valladolid Maya Indians of Yucatán. Another paper he completed during the fiscal year was on the first vocabulary of the Virginia Indians, compiled by William Strachey in 1612. The original of this vocabulary is in the Bodleian Library at Oxford, England.

At the beginning of the fiscal year and until after Labor Day, Dr. William N. Fenton was visiting professor of anthropology at the University of Michigan. During his stay in Ann Arbor he examined important historical papers relating to the political history of the

Six Nations, or Iroquois, in the William L. Clements Library of the University of Michigan. Returning to Washington in September, Dr. Fenton resumed his research at the Bureau of American Ethnology. He organized and conducted the Seventh Conference on Iroquois Research held at Red House, N. Y., October 5-7. In November he participated in a symposium on the training of professional anthropologists, which was held on the occasion of the annual meetings of the American Anthropological Association. Late in November Dr. Fenton was called to the National Research Council to organize a national conference on disaster studies, in which he participated on December 6. He resigned his position with the Bureau to accept an appointment as executive secretary of the Division of Anthropology and Psychology at the National Research Council and began his duties on January 1, 1952.

Dr. Philip Drucker reported for duty as general anthropologist on January 3, 1952, immediately following his release to inactive duty by the United States Navy. On February 15 he proceeded to México D. F., for a period of 6 weeks, which he spent studying the large offering of artifacts of jade and similar materials excavated in 1941 at Cerro de las Mesas by the National Geographic-Smithsonian Institution archeological project. This collection is housed in the National Museum of Mexico. On his return to Washington he prepared a descriptive monograph on the collection, which was ready to be submitted to the Director of the Bureau at the end of the fiscal year. In addition, Dr. Drucker continued his studies of Meso-American archeology in general.

RIVER BASIN SURVEYS

(Report prepared by FRANK H. H. ROBERTS, Jr.)

The River Basin Surveys, organized in the autumn of 1945 as a unit of the Bureau of American Ethnology to carry into effect a memorandum of understanding between the Smithsonian Institution and the National Park Service, continued its operations throughout the year. The memorandum provides for the salvage of archeological and paleontological materials that would otherwise be lost as a result of numerous projects for flood control and irrigation, hydroelectric installations, and navigation improvements in the river basins of the United States. As in the past, the investigations were conducted in cooperation with the National Park Service and the Bureau of Reclamation of the Department of the Interior, the Corps of Engineers of the Department of the Army, and a number of nongovernmental local institutions. The operations as a whole are called the Inter-Agency Archeological and Paleontological Salvage Program.

The work of the River Basin Surveys in the past fiscal year was financed by a transfer of \$156,403 to the Smithsonian Institution by the National Park Service. Of that amount \$120,783 was for investigations in the Missouri Basin and \$35,620 was for all other areas where projects were under way. The money comprising those funds was derived in part from the Bureau of Reclamation and in part from the National Park Service. Carry-over of previous funds provided an additional \$77,576 for the Missouri Basin and \$350 for other areas. The total of all funds available for the year was \$234,329. Because of a delay in the passage of the appropriation bill it was necessary to suspend operations outside the Missouri Basin during July and August.

Activities in the field consisted of reconnaissance or surveys for the purpose of locating archeological sites and paleontological deposits that will be involved in construction work or are so situated that they will be flooded, and in the excavation of sites observed and recorded by previous surveys. In contrast to former years there was greater emphasis on excavation. This was because of the fact that the survey parties were finally catching up with the over-all program and there were fewer proposed reservoir areas needing attention. Archeological survey parties visited 10 new reservoir basins located in 6 States and a paleontological party made preliminary investigations at 6 reservoirs in 3 States. In addition a number of reservoirs where previous preliminary surveys had been made were revisited for further checking. At the end of the fiscal year excavations were completed or under way in 13 reservoir areas in 11 States. There were 22 excavating parties in the field during the course of the year. Six of the excavating projects were in areas where there had been no previous digging, but the remainder were a continuation of investigations at reservoir projects where there had been other operations. At the close of the fiscal year the total of the reservoir areas where archeological surveys had been made or excavations carried on since the start of the actual field work in the summer of 1946 was 235 located in 25 States. The survey parties have located and reported 3,105 archeological sites, and of that number 578 have been recommended for excavation or limited testing. Preliminary appraisal reports were completed for all the reservoirs surveyed. Some, together with others finished near the end of the previous fiscal year, were mimeographed for limited distribution to the cooperating agencies. During the year 15 such reports were distributed, bringing to 149 the total issued since the start of the program. The discrepancy between the latter figure and the total number of reservoirs is due to the fact that in some cases a series of reservoirs is included in a single report covering a subbasin, while in others the

completed manuscripts had not yet been mimeographed at the close of the year. Excavations made during the year brought the total for reservoir basins where such work has been done to 38, located in 17 States. Reports on some of that work have been published in various scientific journals, and eight such papers are now in press as a Bulletin of the Bureau of American Ethnology. The technical reports on two other excavation projects have been finished. Paleontological surveys have been made in 121 reservoir areas, 86 of them being those where archeological work has also been done. Eventually the other 35 will be visited by archeological parties. The total of all reservoir basins surveyed, including those where archeological work still remains to be done, is 270.

As of June 30, 1952, the reservoir projects which had been surveyed for archeological remains were distributed by States as follows: California, 20; Colorado, 24; Georgia, 4; Idaho, 11; Illinois, 2; Iowa, 3; Kansas, 7; Kentucky, 1; Louisiana, 1; Minnesota, 1; Montana, 15; Nebraska, 28; New Mexico, 1; North Dakota, 13; Ohio, 2; Oklahoma, 7; Oregon, 27; Pennsylvania, 2; South Dakota, 9; Tennessee, 1; Texas, 19; Virginia, 2; Washington, 11; West Virginia, 2; Wyoming, 21. Excavations have been made or were being made in reservoir areas in: California, 5; Colorado, 1; Georgia, 3; Kansas, 1; Montana, 1; Nebraska, 1; New Mexico, 1; North Dakota, 3; Oklahoma, 2; Oregon, 2; South Carolina, 1; South Dakota, 3; Texas, 7; Virginia, 1; Washington, 3; West Virginia, 1; Wyoming, 2. The foregoing figures refer only to the work of the River Basin Surveys or that which was done in direct cooperation with local institutions. Projects carried on by local institutions alone or in direct cooperation with the National Park Service are not included because complete information about them was not available.

Throughout the year the River Basin Surveys continued to receive helpful cooperation from the National Park Service, the Bureau of Reclamation, the Corps of Engineers, and numerous State and local institutions. At a number of projects guides and transportation were furnished to staff members in the field. Temporary office and laboratory space was provided at others, and on several occasions labor and mechanical equipment were made available by the construction agency. Such assistance speeded up the work of the field men and made possible greater accomplishment than would otherwise have been the case. The National Park Service continued to serve as the liaison between the various agencies both in Washington and through its several regional offices and provided the Smithsonian Institution with necessary information about the locations for proposed dams and reservoirs and construction priorities. Furthermore, the National Park Service primarily was responsible for obtaining the funds which

made the operations possible. The progress of the program as a whole was greatly furthered by the enthusiastic help of Park Service personnel.

General direction and supervision of the work in California, Georgia, and Virginia were from the main office in Washington. In the Columbia Basin the program was directed from a field office and laboratory at Eugene, Oreg.; that in the Missouri Basin was under the supervision of a field office and laboratory at Lincoln, Nebr.; and that in Texas was under a field office and laboratory at Austin. The materials collected by the survey and excavating parties in those three areas were processed at the respective field laboratories. The collections made in Georgia were processed at a laboratory in Athens.

At the end of the fiscal year a change was made in the plan of operations for the Inter-Agency Salvage Program. The work of the River Basin Surveys was terminated in the Columbia Basin and Pacific coast areas, in the Southwest including Texas, and in Georgia and other portions of the Southeast. With the beginning of the new fiscal year the direction and supervision of the investigations in those areas were to be under the National Park Service with its respective regional offices in direct charge. At the close of the year arrangements were being made to transfer certain of the River Basin Surveys' personnel to the National Park Service and for the latter agency to take over the various field headquarters.

Washington office.—Throughout the fiscal year the main headquarters of the River Basin Surveys continued under the direction of Dr. Frank H. H. Roberts, Jr. Carl F. Miller, Joseph R. Caldwell, and Ralph S. Solecki, archeologists, were based on that office. Because of lack of funds for work outside the Missouri Basin, however, Miller was assigned to the Missouri Basin project during July, August, and September, and Caldwell was on leave without pay until September 10, 1952. Solecki was on leave of absence with an expedition to Iraq for most of the year, returning to duty with the surveys in May.

Mr. Miller's activities in the Missouri Basin are discussed in that section of this report. During the fall and winter months at the Washington office he completed his technical paper on the excavations he supervised at the Allatoona Reservoir in Georgia during an earlier fiscal year and processed specimens from sites which he dug at the John H. Kerr (formerly called Buggs Island) Reservoir the latter part of the previous fiscal year. In May he returned to the John H. Kerr Reservoir area on the Roanoke River in southern Virginia and carried on test excavations at a number of sites. That work was completed on June 30 and Mr. Miller returned to Washington. The gates of the dam were scheduled to be closed early in July, and no further investigations are planned for that area.

Early in August Mr. Caldwell received word that an important site located a short distance above the Clark Hill Dam on the Savannah River, Ga., would be inundated well in advance of the date originally indicated by the engineers. With funds provided by the Smithsonian Institution and the University of Georgia and with the help of the resident engineer of the Corps of Engineers, he started excavations on the 18th of the month and continued to dig until he and his party were driven out by water at the end of October. When Federal funds became available in September the River Basin Surveys took over the financing of the project. During January and February Mr. Caldwell carried on test excavations at the remains of Fort Charlotte at the upper end of the Clark Hill Reservoir in South Carolina. While at his headquarters at Athens, Mr. Caldwell completed five preliminary reports and made considerable progress on the final technical report of his part of the excavations at the Allatoona Reservoir. The report on Fort Charlotte was mimeographed and ready for distribution at the close of the fiscal year. An article on work completed a previous fiscal year, "The Booger Bottom Mound: A Forsyth Period Site in Hall County, Ga.," was published in *American Antiquity*, volume 17, No. 4, April 1952. Mr. Caldwell's employment by the River Basin Surveys was terminated as of June 30, 1952, by his transfer to the National Park Service.

Dr. Theodore E. White, geologist, divided his time between the Washington office and the Missouri Basin. He spent the winter and early spring months in Washington cleaning, identifying, and cataloging specimens he had collected during the field season. He also identified four lots of mammal bones from archeological excavations along the Columbia River, and four lots of bones from the Missouri Basin which were sent to Washington for that purpose. He completed a manuscript, "Preliminary Analysis of the Vertebrate Fossil Fauna of the Canyon Ferry Reservoir Area," which was accepted for publication in the *Proceedings of the United States National Museum*, and two papers on observations on the butchering techniques of aboriginal peoples as indicated by the bones from the refuse deposits at archeological sites. One paper, "Preliminary Analysis of the Vertebrate Fossil Fauna of the Boysen Reservoir Area," was published in the *Proceedings of the United States National Museum*, volume 102, No. 3296, April 1952. Another, "Observations on the Butchering Technique of Some Aboriginal Peoples, I," appeared in *American Antiquity*, volume 17, No. 4, April 1952. A third, "Suggestions for Facilitating Identification of Animal Bone from Archeological Sites," was printed in the *Plains Archeological Conference News Letter*, volume 5, No. 1, May 1952. In May Dr. White left Washington to continue his field investigations in the Missouri Basin.

After his return to active duty Mr. Solecki spent the time until June 30 working on manuscripts and reports. He also made preparations for an aerial survey of certain reservoir areas in the Missouri Basin and was to proceed to the latter area at the beginning of the new fiscal year.

California.—The only work in California during the fiscal year was at the Cachuma Reservoir on the Santa Ynez River in Santa Barbara County. From April 28 to June 30 Albert D. Mohr, field assistant, supervised excavations at two sites. At one of them a cemetery belonging to what is called the Hunting Culture, the middle stage of a three-culture sequence, was dug, and in addition the remains of a house belonging to the same horizon were uncovered. The latter are of particular interest because only two such structures were known previously and the one discovered this year has added considerable information with respect to construction methods. Opening of graves in the cemetery produced skeletal material useful in determining the physical characteristics of the people and also good data on burial customs. The other site, also mainly a burial ground, belongs to a later horizon probably attributable to the Chumash.

A report by Martin A. Baumhoff, field assistant the previous year, on the investigations at the Cachuma Reservoir in late fiscal 1951 was completed early in June 1952 and the manuscript is now available for publication. A summary report on the results of the excavations made at the Terminus Reservoir on the Kaweah River in Tulare County was completed by Franklin Fenenga, archeologist, during the autumn months and was published in *American Antiquity*, volume 17, No. 4, April 1952.

As indicated in the preliminary section of this report, the River Basin Surveys will have no further projects in California, as the operations there are to be under the direction and supervision of the Region Four office of the National Park Service.

Columbia Basin.—The field office at Eugene, Oreg., was closed from July 1 to September 10 because of lack of funds, and during that period there were no activities in the region. After the office was reopened and until the close of the fiscal year the operations for the Columbia Basin were, as in the previous year, under the supervision of Joel L. Shiner. Office and laboratory work during the fall and winter months was mainly concerned with the processing, study, and cataloging of materials from the surveys and excavations of the previous year. Most of the materials and data were from a habitation site in the McNary Reservoir area which had been buried beneath a thick mantle of volcanic ash which is estimated to be several thousand years old. A summary report on the results of that excavation was finished, mimeographed, and distributed to the operating agencies. Study of the materials from another site in the McNary area, a village

of late prehistoric and early historic times, was also completed and a summary report finished. The latter was mimeographed and distributed in June.

Late in October Mr. Shiner made a brief investigation at the site of The Dalles Dam on the Columbia River and in March made an exhaustive survey of the area to be flooded. A brief preliminary report was issued after the first visit, while a second and more detailed one was written and mimeographed following the investigations in March. The survey showed that there were 10 sites and that 3 were worthy of further investigation. One of them is a very large mound with stratified deposits some 15 feet in depth. It offers one of the best opportunities along the Columbia River for obtaining evidence on the sequence of cultural development. This mound, the Wakemap, is in danger from two sources, flooding and looting by private collectors. The situation with respect to unauthorized digging was so critical that plans were being made to start excavations there shortly after the beginning of the new fiscal year. Two other sites in the area were tested later in the spring and one of them proved to be much deeper and richer in artifacts than had been anticipated. One test pit, 5 feet square, yielded large numbers of flaked-stone tools and "fetish" stones and reached a depth of 13 feet. More extended excavations at that location are indicated.

From April 7 to 19 Mr. Shiner carried on test excavations at three sites in the McNary area. One of them consisted of an occupation level underlying the same layer of volcanic ash as that covering the site worked the previous year. The findings corroborated those of the previous year and in addition the digging produced several new artifact types. At another it appeared that the Indians who had occupied it moved in shortly after the fall of the ash. The interval represented by the ash layer will help to explain certain differences in the artifacts and provides a good basis for establishing relative dating in the district. Excavations at the third site proved fruitless. The latter part of April Mr. Shiner moved his field party to the Albeni Falls Reservoir project on the Pend Oreille River in Idaho for the purpose of testing a number of sites in that basin. The occupational debris at the various locations was found to be so shallow, however, that extensive digging was not warranted. Consequently the party spent several days making surface collections. A good series of specimens was obtained which will be useful in extending the known distribution of types. The data collected indicate that the area never had a permanent population. It apparently was a place where various groups of Indians spent their summers hunting, fishing, and gathering food.

After returning to the office Mr. Shiner devoted most of his time to processing the artifacts collected in the field. Over 1,500 were

cleaned and cataloged. A report on the investigations at Albeni Falls was completed and one on the test digging at The Dalles was practically finished by the end of the year. A collection of specimens from a previous year's digging in the McNary Reservoir was packed and shipped to Washington.

Four articles pertaining to the results of previous work in the Columbia Basin were published in *American Antiquity*, volume 17, No. 4, April 1952. They were: "The 1950 Excavations at Site 45BN6 McNary Reservoir, Wash.," by Joel L. Shiner; "Material Culture of an Upper Coulee Rock-shelter," by John E. Mills and Carolyn Osborne; "Archeological Investigations in the Chief Joseph Reservoir," by Douglas Osborne, Robert Crabtree, and Alan Bryan; and "Archeological Investigations in O'Sullivan Reservoir, Grant County, Wash.," by Richard D. Daugherty.

Mr. Shiner's affiliation with the River Basin Surveys terminated on June 30 by transfer to the National Park Service. The River Basin Surveys office at Eugene was to be kept open, however, by the National Park Service, and Mr. Shiner was to be permitted to complete his reports on the work he did for the Smithsonian Institution. The River Basin Surveys will have no further operations in that area.

Georgia.—As in the case of the Columbia Basin, field work in the Georgia area was handicapped by the delay in obtaining funds and the limited amount of money available for the project. During the period from August 18 until the end of October an emergency co-operative excavation project, as described in an earlier section of this report, was carried on at the Lake Springs site on the Savannah River just above the Clark Hill Dam. A large sample of archaic material representing a prepottery horizon called the Savannah River Focus of the Stalling's Island Culture was obtained there together with a small series of contemporary crania showing a population of both round- and long-headed individuals. The most important discovery at the site, however, was a new early culture deep below the archaic levels. This new manifestation, which has been designated the Old Quartz Culture, showed an artifact assemblage similar to those which had been found at a large number of open stations in Piedmont Georgia and South Carolina. They have been regarded as probably early but could not be so proven until the discovery of the stratigraphy at Lake Springs. Unfortunately, the rising waters of the Clark Hill Reservoir flooded the excavation pits before as much work had been done as was desired, but the results obtained are a definite contribution to the archeology of the region.

In late January and February test excavations were carried on in the remains of Fort Charlotte at the upper end of the Clark Hill Reservoir in South Carolina. Although located in the latter State

the investigations were considered as part of the over-all Georgia project. The outline of the fort was traced and a few minor artifacts were recovered. The fort had been a masonry structure erected in 1765 as a defense against the Creek and Cherokee Indians who were prone to raid the Scotch-Irish, French Huguenot, and German settlements in the Long Canes region of upper Carolina. Its seizure by patriot forces in 1775 was the first overt act of revolution in the southern colonies. American possession of the fort throughout the struggle was of considerable importance in holding the loyalties of the inhabitants of upper Carolina during the troubled times that followed. The recent excavations there give information about the physical nature of the fort and its location which was not available in documentary records. Underlying the occupation level of the fort were Indian materials indicating that the location had also been a place where the aborigines held forth. Pottery fragments suggest that the Creeks were the tribe involved. There is no question but what the Indian material is some years, possibly a good many, older than the fort and that the site was deserted at the time it was chosen for the location of Fort Charlotte.

There will be no further work in Georgia under the direction and supervisions of the River Basin Surveys, unless there are further changes in present plans. As indicated earlier in this report Mr. Caldwell's employment terminated on June 30 and he was transferred to the National Park Service. He will be permitted, however, to complete his technical reports on work done under the Smithsonian Institution and the manuscripts will be turned over to the River Basin Surveys.

Missouri Basin.—The Missouri Basin project as in previous years continued to operate from the field headquarters at Lincoln, Nebr. Paul L. Cooper served as director for the program in that area from July 1 until February 28 when, in accordance with his request to be relieved of administrative duties, Ralph D. Brown took charge. Certain changes were made in the organization at that time and Mr. Brown was designated as chief of the Missouri Basin project, the old title of field director being dropped. Mr. Cooper remained with the organization and was assigned to the position of consulting archeologist. The trend toward more excavation and less reconnaissance or survey work, started the previous year, continued and increased in fiscal 1952. This is attributable to the fact that much has been accomplished in the survey portion of the program and there is less need for that kind of activity than in previous years. Furthermore, the available funds were sufficient to provide for extensive excavations. During the course of the year the staff was able to devote a greater proportion of its time to the study of data and specimens and in the preparation of technical reports.

During the year archeological surveys were conducted in five new reservoir areas of which three were in Wyoming, one was in Montana, and one in Nebraska-South Dakota. Others where the preliminary reconnaissance had not been completed were revisited and a total of 115 new sites was recorded. In the 1951 field season archeological excavations were made in four reservoir areas by seven different units. By the end of June 1952 there again were seven archeological excavation parties working in four reservoir areas, three of them the same as in the previous year. Digging at the Keyhole Reservoir in Wyoming was completed in 1951 and excavations in the Jamestown Reservoir in North Dakota were started in 1952. The other three are Fort Randall and Oahe in South Dakota, and Garrison in North Dakota. During the year there were paleontological investigations in 12 reservoir areas. An archeological survey party was scheduled to start for the field in late June but because of an emergency was delayed and its departure rescheduled for the first week in July.

At the Fort Randall Reservoir in South Dakota the 1951 excavations were at an Indian site and at a historic trading-post site. The Indian site is of particular interest because it represents three occupational periods. One was a fortified earth-lodge village, one an unfortified earth-lodge village, and the third an occupational area underlying both of the others. In the fortified area 7 earth lodges, a smaller structure, 450 feet of stockade trench, 11 cache pits, and 22 refuse areas were exposed and excavated. In the unfortified earth-lodge area, one circular earth lodge, one cache pit, and four refuse pits were unearthed. In May 1952 excavations were resumed in the unfortified area and before the end of June had exposed 2 earth lodges, a refuse midden, and 19 exterior pits. The date of the fortified village was earlier and the occupational area beneath much older still. Completion of the work at that location will provide an excellent sequence of materials leading up to the development of fortified villages in that district.

The historic work in the Fort Randall Reservoir in 1951 was at the location of the Fort Lookout trading post. The occupational level of the post was established. Charred beams used in construction, sections of vertical posts still in place, and other architectural features were uncovered, along with numerous specimens of trade goods. Two Indian occupational levels antedating the establishment of the trading post and the nearby fort were found beneath the ruins of the post. They are of interest because they produced materials not previously known in that part of South Dakota. In May 1952 historic investigations were resumed, but they were at the site of the Whetstone agency which was established for the Brule and Ogallala bands of Sioux from the Fort Laramie region by a treaty drawn in April

1868. By 1869 about 1,000 Indians were living there, and by 1870 the number had increased to about 2,250. One year later the Indians were moved to a new location but the agency buildings continued in use through the later 1870's as a steamboat landing for supplies to be conveyed overland to Indian agencies in the interior. Little is known about the physical characteristics of the agency or of the Indian camp, and digging there should provide interesting data to augment the documentary records. By the end of June floor areas had been uncovered and cedar post butts in palisade trenches were exposed. Work at that site is scheduled to continue until it is completed, which probably will be at about the end of the current field season.

In the Oahe Reservoir area during the 1951 field season excavations were carried on at two Indian sites. One of them is located just below the dam in an area which will ultimately be destroyed by construction activities, while the other is several miles upstream on the west bank just below the point where the Cheyenne River empties into the Missouri. At the first location, known as the Phillips Ranch site, 5 earth lodges and 47 cache pits were uncovered, 2 trenches were dug across the fortification ditch which surrounded the village, and the refuse-bearing overburden was stripped from approximately one-eighth of the village area. During the previous year 5 lodges and 46 cache pits had been dug, so the total for the village was 10 houses and 96 cache pits. A large collection of specimens was obtained there, the most outstanding probably being a few small fragments of coiled basketry. The latter is extremely rare in archeological sites in the Plains area. The data obtained from the site provided the basis for establishing a previously unrecognized cultural complex for the district. It appears to date from the early part of the eighteenth century and almost certainly represents the protohistoric Arikara occupation of the area. Excavations at the Phillips Ranch site have been completed.

The other site, known as the Cheyenne River village, was only partially dug and will be completed at a later date. The work there consisted of the excavation and mapping of four house sites (a fifth was nearly finished when heavy storms flooded it so badly that it had to be abandoned) and the digging of cache pits. Cultural materials from house sites and cache pits were recovered in large quantities and preliminary studies indicate that they will provide much new information about the arts and industries of their makers.

The 1952 excavations in the Oahe Reservoir were started at new sites. One of them, which had been partly destroyed by construction activities, is on the east bank of the Missouri River opposite the Phillips Ranch site, while the other, which represents a large village, is located not far downstream from the Cheyenne River village.

Work had not progressed sufficiently at either location by the end of the fiscal year to indicate what results might be expected.

At the Garrison Reservoir in North Dakota two excavating parties spent the 1951 field season digging in Indian and historic sites. At one Indian village location the remains of 8 circular houses, 4 sweat lodges, 48 cache pits, and numerous other miscellaneous features were uncovered. The artifact yield was good, including uncommon steatite fragments from bowls made from that material. The bowls probably reached the area by trade from the west. They may have come up the Columbia and down the Missouri as that was a main aboriginal trade route. During the 1950 field season at that location five houses were excavated and the palisade and moat were traced. The combined data for the two seasons give a satisfactory story of the village and its material culture. The village was reputedly occupied in the late eighteenth century by the Hidatsa Indians and is particularly interesting because it presumably was the most northerly of the fortified earth-lodge communities belonging to the period preceding the replacement of aboriginal material culture by trade goods obtained from the white man. The other site investigated had also been a fortified village. Five houses and parts of a sixth were excavated there, and a ceremonial structure 72 feet in diameter, a large village gateway, and several other features were found. Cross sections were taken of the surrounding defensive ditch. This site, believed to have been occupied chiefly by the Arikara Indians, produced relatively few artifacts but it throws valuable light on the architecture and community plan of the period. In June 1952 an excavating party proceeded to the Night Walker's Butte to begin digging the remains of one of the few known Indian villages located on top of a butte.

The historic-sites party spent the period from July 1 to October 7, 1951, in the excavation of Fort Stevenson, a mile above the Garrison Reservoir dam site. The foundations of five of the more important military buildings and of several minor ones were traced and a considerable quantity of materials was obtained. Fort Stevenson was a typical Missouri River frontier post and was built to keep the river open for navigation and to protect the Fort Berthold Indians from the Sioux. In addition the post served as one of the main points on the overland mail route which ran from St. Paul to Montana. Although the fort was started in 1867 and was completed late in 1868 and there are considerable documentary data about it, useful new information pertinent to the actual character of the post and certain Indian relationships was obtained during the course of the work. Before stopping for the season the Fort Stevenson party made tests in a trading-post site at the mouth of the White Earth River and obtained some trade goods. The historic-sites party returned to the Garrison area in June 1952 and began work at a site in the Fort Berthold district.

From July 1 to September 25, 1951, six key sites were excavated in the Keyhole Reservoir on the Belle Fourche River in Crook County, Wyo. The excavated sites include one large protohistoric camp with pottery remains, three prehistoric camp sites, and two stratified rock shelters. The lowest levels in both rock shelters are manifestations of a new early-man complex. The data indicate that the aboriginal occupation of the Keyhole area may have started about 5,000 years ago. Much more recent materials were found in the upper levels and in a few cases there were potsherds from vessels of the so-called Woodland types. The latter are significant because they extend considerably westward the known range of that kind of Indian pottery. The investigations at the Keyhole Reservoir have been completed.

The Jamestown Reservoir on the river of the same name in North Dakota was listed for investigation for the first time since the start of the program. A survey party was supposed to make a reconnaissance there in the fall of 1951 but because of bad weather was unable to do so. As a consequence a combined survey and excavating party went there in May 1952. After 3 weeks' preliminary examination of the area and 18 sites had been located, excavations were started in a mound 75 feet in diameter and 10 feet in height located on a bluff, and in some house remains on the bottom lands. The mounds in that portion of North Dakota show considerable similarity to those in northern Minnesota and southern Manitoba and all probably belong to the same cultural complex. The actual people involved have not been identified as yet, and as little is known about the character of the remains the results of the investigations there should add materially to knowledge about the Indians. The work there had not progressed sufficiently by June 30 to permit a statement about the findings.

During the 1951 field season the paleontological party visited and collected in five reservoir areas, two in Montana, one in North Dakota, and two in South Dakota. In exploring the Oligocene and Miocene deposits in the Canyon Ferry Reservoir basin in Montana the party added two genera of small mammals to the known fauna of the Oligocene and six genera of those of the Miocene. While the sediments of the Montana group of the the Upper Cretaceous were being studied near the dam for the Oahe Reservoir, S. Dak., the first nearly complete skeleton of one of the pygmy species of mosasaur, genus *Clidastes*, ever obtained was found. The 1952 field season's work started with a preliminary reconnaissance of the Tuttle Creek and Lovewell Reservoir basins in the Kansas River drainage, Kansas, and was followed by surveys of three reservoir areas in the Platte Drainage. They were the Narrows in Colorado, and the Ashton and Trenton in Nebraska. Preliminary prospecting was also carried on at the Gavins

Point Reservoir on the Missouri River in Nebraska and South Dakota. The first of June found the party at the Keyhole Reservoir in Wyoming exploring Cretaceous sediments and the latest report is that most of the skeleton of a small plesiosaur was found in the New-castle member of the Granerose shale, the first record of vertebrate remains from that formation. On June 25 the party moved to the Canyon Ferry Reservoir in Montana and was just starting work there at the end of the fiscal year.

During the course of the year seven preliminary appraisal reports were completed, mimeographed, and distributed to the cooperating agencies; four were completed and are ready for mimeographing; and two supplements to previous reports were finished and are awaiting mimeographing. Four short articles on specific subjects in Plains archeology were prepared by members of the staff and published in the Plains Archeological Conference News Letter. Two articles were published in American Antiquity and one report appeared in the Proceedings of the U. S. National Museum. One technical report on excavations in the Oahe area was completed and the first drafts of those on two others have been finished.

The laboratory at Lincoln processed 87,935 specimens from 170 sites in 18 reservoir areas and 2 sites not in reservoir areas. The work in the laboratory also included: reflex copies of record sheets, 21,444; contact prints made, 8,826; negatives, 2,036; enlargements, 1,326; specimens drawn for illustrations, 872; color transparencies cataloged, 321; drawings, tracings, maps made, 112.

Robert B. Cumming, Jr., archeologist, was in charge of the survey and excavation of aboriginal archeological sites at the Fort Randall Reservoir in South Dakota from July 1 to November 6 and from May 19 to the end of the fiscal year. During the winter months at the Lincoln headquarters Mr. Cumming worked on the technical report on the Oldham site, the scene of most of his activities during the 1951 summer field season.

Paul L. Cooper, archeologist, served as field director for the Missouri Basin activities during the period from July 1 to February 28. On the latter date he became consulting archeologist for the project. During the spring months Mr. Cooper devoted considerable time to discussing the project with Mr. Brown, the new chief, and in consultation with other members of the staff on archeological procedures in the laboratory. He completed a report of progress for the period from the beginning of the project in 1946 through April 1952 for the Interior Missouri Basin Field Committee. He also worked on a more detailed report covering the calendar years 1950 and 1951. He met with the Interior Missouri Basin Field Committee at its April session where he evaluated the progress made to that date by the

River Basin Surveys of the Smithsonian Institution and took part in a discussion of the future needs of the salvage program. Mr. Cooper served as the chairman of the Ninth Conference for Plains Archeology, which met at Lincoln in April. On June 6 he left Lincoln for the Oahe Reservoir in South Dakota and at the end of the fiscal year was directing a party excavating aboriginal sites along the Missouri below the mouth of the Cheyenne River.

Franklin Fenenga, archeologist, was in charge of a reconnaissance party from the beginning of the fiscal year until September when he returned to the Lincoln office. During the field season his party visited 15 proposed reservoir areas. Probably the most interesting part of the season was that devoted to a boat trip down the Bighorn River Canyon in Wyoming-Montana to examine the area of the proposed Yellowtail Reservoir. On June 8 he went to the Oahe Reservoir and started a series of excavations near the dam site a few miles above Pierre, S. Dak. Those activities were well under way by June 30. During the months spent at the headquarters in Lincoln Mr. Fenenga prepared preliminary appraisal reports for seven reservoir projects. He presented two papers before the Ninth Conference for Plains Archeology, and served as editor of the News Letter for that conference. He was reelected to that office for the year 1952-53. He also read a paper before the 62d annual meeting of the Nebraska Academy of Sciences. During the 1952 meeting of the Academy he served as acting chairman of the anthropological section and was elected its chairman for 1953. Mr. Fenenga had two papers published during the year: "The Archeology of Slick Rock Village, Tulare County, California," *American Antiquity*, volume 17, No. 4, April 1922, and "The Wabino, a One-time Rival of the Midewiwin," *Proceedings of the Nebraska Academy of Sciences*, 62d Annual Meeting, 1952.

Donald D. Hartle, archeologist, was in charge of an excavating party at the Rock Village site in the Garrison Reservoir area of North Dakota from July 1 to August 20. From August 20 to October 27 he directed the excavations at the Star site in the same reservoir basin. The latter part of October, in collaboration with James H. Howard of the North Dakota State Historical Society, he recorded 12 Indian songs, including several of those known as "Custer" songs. Two Arikara Indians, Jonie Fox and Davis Paint, did the singing for Hartle and Howard. From November 1 to June 1, Hartle spent his time at the Lincoln headquarters studying his materials from the Rock Village and preparing a technical report on the results of his investigations. Further work was contemplated at Rock Village and the manuscript could not be finished until that was done. Hartle left Lincoln on June 2 with a party to continue his studies at Rock Village and by the end of the month had completed the additional excavations.

Mr. Hartle presented a paper on the investigations at Rock Village before the Ninth Conference for Plains Archeology at Lincoln in April.

Donald J. Lehmer, archeologist, conducted excavations from July 1 to September 10 at the Phillips Ranch site in the Oahe Reservoir near Pierre, S. Dak. Returning to Lincoln from South Dakota Mr. Lehmer devoted the period to December 31, when his appointment with the River Basin Surveys terminated, to completing a technical report on the results of two seasons' work in the Oahe area. This report, consisting of 250 manuscript pages, presents in detail the information obtained from the Dodd and Phillips Ranch sites. Publication of the report is planned for the next fiscal year. In addition Mr. Lehmer completed two shorter articles which were published in *American Antiquity* for April 1952. One was "The Fort Pierre Branch, Central South Dakota." The other was on an Oklahoma project and is referred to in a later section of this report.

George Metcalf, field and laboratory assistant, worked with the Hartle party in the Garrison Reservoir during July and August. In addition to taking an active part in the excavations he made a series of surveys in the area and located a number of new sites. In September he joined the Smith party in the investigations at Fort Stevenson and in October participated in a reconnaissance of the region adjacent to Fort Stevenson. During the winter months he checked the survey records and prepared a supplemental report on the archeological resources of the Garrison Reservoir. He assisted in the analysis of artifacts from the Rock Village and collaborated in the preparation of the section of a technical report dealing with trade materials and pottery. In May Mr. Metcalf made a survey of the Big Sandy Reservoir in the Eden Valley, western Wyoming. In June, during an emergency, he took charge of one of the parties in the Oahe area for a 2-week period. On June 30 he was en route to join the party under G. H. Smith in the Garrison Reservoir, N. Dak.

Carl F. Miller, archeologist, transferred to the Missouri Basin for the season, spent the latter part of July, August, and until September 13 digging in a historic site in the Fort Randall Reservoir near Chamberlain, S. Dak. When the excavations were completed Mr. Miller proceeded to Lincoln where he spent two weeks completing field records and other data. From Lincoln he returned to his base at the Washington office where he finished his report on the summer's activities.

John E. Mills joined the staff of the Missouri Basin project as an archeologist on April 10, 1952. During April and May he examined and studied all the records and artifacts pertaining to historic-site research in the Fort Randall Reservoir area and in May made a brief survey trip through the reservoir basin with National Park Service representatives of Region Two to determine what historic

sites merited excavation. In early June he started excavations at the site of the Whetstone Agency and was continuing operations there at the end of the fiscal year.

James M. Shippee, field and laboratory assistant, spent the early part of July with the Wheeler party at the Keyhole Reservoir in Wyoming. The last 2 weeks of the month he joined the Fenenga party for the boat trip through the Bighorn Canyon. He returned to the Keyhole area in August and remained with the Wheeler party until it returned to Lincoln in September. During the fall and winter months he was occupied with various duties at the field headquarters. In March he spoke before the Great Bend chapter of the Missouri Archeological Society and in May read a paper at the annual meeting of the Nebraska Academy of Sciences on salvage work at an archeological site destroyed by flood prevention work near Kansas City, Mo.

G. H. Smith, archeologist, spent the period from July 1 to October 1, 1951, excavating in the remains of Fort Stevenson. During that period five of the more important building sites were completely or largely excavated and there was some digging in a few lesser ones. In October Mr. Smith, accompanied by George Metcalf, made a reconnaissance in a previously unsurveyed part of the Garrison Reservoir. Some test excavations were made at that time at the supposed site of the fur-trading post of James Kipp. From October 28 to June 2, Mr. Smith was at the Lincoln headquarters where he prepared a report on the results of the Fort Stevenson investigations. The first draft was completed and referred to the Chief for review. In May Mr. Smith accompanied a party of National Park Service historians on a visit to historic sites in the Gavins Point, Fort Randall, Oahe, and Garrison Reservoirs. In June he returned to the Garrison Reservoir and started excavations at the supposed site of the original Fort Berthold, and at Fort Atkinson, its successor, which is also known as Fort Berthold II. By June 30 a section of the site of the latter had been opened and considerable information was being obtained concerning the post and Indian trade in general.

Dr. Waldo R. Wedel, curator of the division of archeology, U. S. National Museum, was detailed to the River Basin Surveys for the field season of 1951. He directed excavations at the Cheyenne River village site in the Oahe Reservoir area from June 21 to September 14. During the winter months at his regular station in Washington Dr. Wedel worked on the materials and data from the site. As there is considerable more digging to be done there, however, it will not be possible to write the detailed technical report until that has been accomplished.

Richard Page Wheeler, archeologist, spent the period from the start of the fiscal year through September 25 excavating at sites in the Key-

hole Reservoir area in Crook County, Wyo. Returning to Lincoln, Wheeler spent the autumn and winter months analyzing field data and preparing a number of reports. He published a paper, "A Note on the 'McKean Lanceolate Point'" in the Plains Archeological Conference News Letter, volume 4, No. 4, based on materials from sites in the Keyhole Reservoir area. He presented a report on the Keyhole investigations before the Ninth Conference for Plains Archeology in April. Before starting for the field in June he completed two manuscripts: "Excavations and Survey in the Boysen Reservoir Area, Central Wyoming" and "Plains Ceramic Analysis: A check-list of Features and Descriptive Terms." From the middle of June until the end of the year Mr. Wheeler was in charge of a survey and excavation party at the Jamestown Reservoir in North Dakota.

Dr. Theodore E. White, geologist, spent the period from July 1 to 8 exploring the Oligocene and Miocene deposits in the Canyon Ferry Reservoir area in Montana. From July 10 to 21 he was at the Tiber Reservoir in the same State studying the Colorado group of the Upper Cretaceous. From July 22 to August 13 he examined the exposures of the Paleocene Fort Union formation on the south side of the Missouri River in the Garrison Reservoir in North Dakota. The period from August 15 to September 8 was spent exploring the sediments of the Montana group of the Upper Cretaceous near the dam in the Oahe Reservoir area. He then moved on to the Fort Randall Reservoir and spent September 8 to 16 in the area near the dam. That completed Dr. White's field investigations for the 1951 season. His activities during the winter months have already been discussed in connection with the section on the Washington office. From May 15 to 21, 1952, he made a preliminary survey of the Tuttle Creek and Lovewell Reservoirs in the Kansas River drainage, the Narrows, Trenton and Ashton Reservoirs in the Platte drainage, and Gavins Point on the Missouri River. From June 2 to 25 Dr. White examined the Cretaceous sediments in the Keyhole Reservoir and then moved on to the Canyon Ferry Reservoir for further explorations in that area.

Oklahoma.—No field work was done in Oklahoma during the last fiscal year. The technical report on the excavations of the previous year at the Tenkiller Ferry Reservoir on the Illinois River, 15 miles south of Tahlequah, was completed by Donald J. Lehmer. The report, "The Turkey Bluff Focus of the Fulton Aspect," was published in American Antiquity, volume 17, No. 4, April 1952. No further work will be done in Oklahoma by the River Basin Surveys of the Smithsonian Institution since it falls within one of the areas where the investigations will be under the direction and supervision of the National Park Service after July 1, 1952.

Texas.—The River Basin Surveys in Texas continued to operate from the headquarters at Austin. The office, which was closed tempo-

rarily at the beginning of the fiscal year because of lack of funds, was reopened on September 10 and functioned until June 30, 1952. Edward B. Jelks, acting field director, was in charge during that period.

Field work in Texas consisted of surveys and excavations. Preliminary surveys and appraisals were made at the Colorado City Reservoir on the Colorado River in Borden and Scurry Counties, at the Oak Creek Reservoir in the same drainage in Coke County, at the Paint Creek Reservoir on the Clear Fork of the Brazos River in Haskell County, and at the Cooper Reservoir on the South Sulphur River in Delta County. A total of 62 sites was found. In the Colorado City, Oak Creek, and Paint Creek areas none of them appeared to be of sufficient importance to warrant further investigations. At the Cooper Reservoir, however, are a number of small mounds and several village sites which give surface evidence of occupation by two cultural phases. Six of the sites have been recommended for excavation.

Excavations were carried on in three sites at the Belton Reservoir on the Leon River in Coryell County. Some work had been done there in a previous year, but the current digging added much new information. Artifacts from the Caddoan area to the east were found in association with material from the Central Texas and Edwards Plateau cultural aspects. Analysis of the specimens makes it possible, by cross-dating, to place the Central Texas aspect in its proper place in the relative chronology for Texas.

In April, May, and June an excavating party investigated three sites at the Texarkana Reservoir on the Sulphur River in Cass and Bowie Counties. Adequate data were obtained to reconstruct the cultural history of each. Twelve burials were found at one of the sites, nine at another, and five at the third. The skeletal material will provide good information on the physical characteristics and possible relationships of the people. When all the data from the excavations have been studied and the report is completed a gap in the knowledge of that Texas-Arkansas area will be filled. The results should have an important bearing on the problem of Caddoan influences in the eastern Texas region.

Four survey reports were completed for mimeographing during the year. A technical report, "Archeological Excavations at the Belton Reservoir, Coryell County, Texas," by Edward B. Jelks and E. O. Miller, has been completed and will be published this fall in the Bulletin of the Texas Archeological and Paleontological Society. A general paper, "The River Basin Surveys Archeological Salvage Program in Texas," was prepared by Edward B. Jelks for the Texas Journal of Science. One technical report, completed the previous year, "The Hogge Bridge Site and the Wylie Focus," by Robert L. Stephenson, was published in American Antiquity, volume 17, No. 4, April 1952.

The River Basin Surveys will do no further work in Texas since that is one of the projects being taken over by the National Park Service on July 1. Arrangements have been made, however, for the completion of the reports on the investigations made under the direction and supervision of the River Basin Surveys and when the manuscripts are received they will be published in accordance with previous plans.

Virginia.—All the work in Virginia during the past year was concerned with the John H. Kerr Reservoir (formerly called Buggs Island) on the Roanoke River. During the period from May 19 to June 30, 1952, test excavations were made in seven sites. One had been partially dug the previous year but a stratigraphic test as a counter-check against the earlier results was deemed advisable. Data obtained during the current activities augment those from other seasons, filling in certain gaps and clarifying some obscure features. From all the information now available a complete sequence of cultural developments from a relatively early prepottery stage to the late pre-Colonial period can be described. No further work will be possible at the John H. Kerr Reservoir as the gates of the dam will be closed in July and the various sites will soon be flooded.

Sections of the technical report pertaining to sites that were excavated in previous years have been completed. The writing of the report on the current investigations and the summary and conclusions should be completed before the end of the present calendar year.

Future work in Virginia depends upon the program of the Corps of Engineers. There are proposed projects for the James and Shenandoah Valleys and when they are authorized investigations will be needed in both. Indications are that two small reservoirs in the upper James drainage may be started within the next year or two.

Cooperating institutions.—Various State and local institutions cooperated with the River Basin Surveys as in previous years. The University of Washington and State College of Washington cooperated in excavations in the Columbia Basin. Space for field offices and laboratories for units of the surveys was provided by the Universities of Nebraska, Oregon, Texas, and Georgia.

The program developed by the National Park Service whereby various scientific agencies carried on salvage operations on the basis of agreements between those agencies and the Service was continued throughout the year. In some cases the agreements were signed in the preceding year and in others the work provided for did not start until after the close of the fiscal year. However, during fiscal 1952 such agreements were in force with the University of California, University of Washington, University of Oregon, State College of Washington, Montana State University, University of Missouri, University of South Dakota, Nebraska State Historical Society, University of Kansas, University of Wyoming, State Historical Society of North

Dakota, University of Nebraska State Museum, University of Nebraska Laboratory of Anthropology, University of Oklahoma, University of Texas, the Museum of New Mexico, and the University of Mississippi.

INSTITUTE OF SOCIAL ANTHROPOLOGY

(Report prepared by GEORGE M. FOSTER)

During the period under review one phase in the history of the Institute of Social Anthropology drew to a close, and a new one began. The Department of State informed the Smithsonian Institution on September 28, 1951, that it would terminate its support on December 31, 1951. Following the abolition of the Inter-Departmental Committee on Scientific and Cultural Cooperation in 1949, under whose auspices the Institute of Social Anthropology was established and its work carried out, the Institute was placed under the Division of International Exchange of Persons. Since the Institute did not form an organic part of this program, the Department of State's decision to terminate support was not entirely unforeseen. During the period July 1–December 31, 1951, operations were financed with a grant of \$42,000 from Public Law 402.

For some time there had been a growing feeling on the part of the Institute personnel that the general factual knowledge it had accumulated since 1944 should be put to some practical use. Therefore, in the spring of 1951 anthropological analyses of health centers sponsored by the Institute of Inter-American Affairs and the Ministries of Health in México, Colombia, Perú, and Brazil were carried out. The results of this investigation were made available in mimeographed form in July in a paper entitled "A Cross-Cultural Anthropological Analysis of a Technical Aid Program," which demonstrated to the satisfaction of the IIAA that the anthropological knowledge and technical methods used by anthropologists would be useful in carrying out United States Government technical aid programs in Latin America. Accordingly, in a letter dated September 28, 1951, Dr. Henry G. Bennett, Administrator, Technical Cooperation Administration, asked the Institute of Social Anthropology to integrate its activities with those of the IIAA, effective January 1, 1952. In response to this request the IIAA made a grant of \$45,705 to enable the ISA to continue its activities in all four countries, with the understanding that Smithsonian anthropologists would be available for program analyses of technical aid projects.

Individual activities of staff members are described in the separate country sections. The largest single enterprise consisted of participation in a general survey of IIAA public-health programs in Latin America. During the spring of 1952 the IIAA decided to utilize

anthropologists on a permanent basis and requested that plans be made to incorporate ISA personnel directly into that organization. This, of course, signaled the termination of ISA activities as such. Accordingly, the Department of State was requested to notify the Ministers of Foreign Relations of the cooperating countries that the United States would make use of the escape clauses in its memorandum agreements, bringing to a close as of June 30 the agreements that have governed ISA operations during past years. Late in June 1952, the IIAA asked to extend its grant to the Smithsonian Institution for an additional 3 months, to give time for an orderly transfer of personnel. An additional \$15,725 was included in the amended grant, which was to terminate September 30, 1952.

Operations during the period July 1, 1951, to June 30, 1952, were as follows:

Washington.—Dr. George M. Foster continued as Director of the Institute. In September he concluded arrangements with the United States Public Health Service and the IIAA whereby certain Institute of Social Anthropology staff members, as indicated below, would be detailed for varying periods to participate in health-program analyses. He spent most of October in El Salvador as a member of the team that was initiating this work, and gathered data from a country little known anthropologically. During January and February 1952, he visited field personnel in Brazil, Perú, Colombia, and México and participated in the health survey in Chile. In May he went to Geneva, Switzerland, as an adviser on cultural problems to the American Delegation to the Fifth Assembly of the World Health Organization. In June he undertook the editorship of the full USPHS-IIAA report on the Latin-American health survey.

Early in October the Smithsonian Institution brought Dr. Julio Caro Baroja, director of the Museo del Pueblo Español in Madrid, to Washington for a 3 months' stay. During this period he and Dr. Foster were engaged in the preliminary steps of writing a major monograph on Spanish ethnography, designed to make available Hispanic background data to make more intelligible the modern cultures of Hispanic America. Dr. Caro's passage was taken care of by the Smithsonian Institution; his stay in the United States was made possible by a grant from the Wenner-Gren Foundation for Anthropological Research.

Miss Lois Northcott, administrative assistant to the Director since 1947, resigned to take a position with the Technical Cooperation Administration in Egypt, and her place was taken by Mrs. Virginia Clark, formerly with the Bureau of American Ethnology.

Brazil.—Both Dr. Donald Pierson and Dr. Kalervo Oberg continued their teaching activities at the Escola de Sociologia e Politica in São Paulo. Dr. Pierson, as in former years, served as dean of grad-

uate work, as co-editor of the quarterly *Sociologia*, and as editor of the book series *Biblioteca de Ciencias Sociais*. In addition, he was occupied in developing long-range plans for an elaborate cultural research program in the São Francisco Valley. The sum of 500,000 cruzeiros was made available to the Escola by the Brazilian Government to carry out this work, and Dr. Pierson was asked to plan and direct the research. In the spring of 1952 he made several short trips to this area to organize field teams and initiate work. The services of Dr. Oberg were requested by the IIAA for analyses of some of their health and health-education programs in Chonin, Minas Gerais, during the months of July and August 1951. After concluding formal teaching obligations in December he again returned to Chonin, remaining until April 1952. His assignment in São Paulo being concluded, Dr. Oberg was brought to Washington in June, preparatory to reassignment to Rio de Janeiro by the IIAA. Dr. Pierson elected not to transfer to the IIAA, and on June 30, 1952, his connection with the ISA was severed.

Colombia.—Charles Erasmus continued his collaboration with the Colombian Government's Instituto Etnológico in Bogotá. In August he initiated a community analysis of the mestizo village of Tota in the Province of Boyacá. In this work he was aided by Dr. Silva Celis, director of the anthropological museum in Sogamosa, and Sr. Silvio Yepes, member of the staff of the Instituto Etnológico. In November he was detailed to the United States Public Health Service and sent to Ecuador where he remained until January 1952. In this capacity he participated with the health survey group which at that time was working in Ecuador. He was detailed to the IIAA in May 1952, and sent to Haiti for 6 weeks to participate, with a team of experts, in surveying the Artibonite Valley for planning of agricultural programs.

México.—Dr. Isabel Kelly taught two courses during the fall semester at the Escuela Nacional de Antropología, in Mexico City. During October she made a brief visit to El Salvador to consult with the director of the Institute regarding analyses of IIAA projects (see Washington), and to make comparative observations in that country. In November she initiated additional research on health problems in the Federal District, in which work she was assisted by students from the Escuela Nacional. This research continued until March 1952. In May and June of that year Dr. Kelly carried out research in applied anthropology in the village of Cadereyta, Querétaro, where the IIAA desired information on the sociological effects of a new water-supply system.

Dr. William Wonderly continued teaching activities through August, at which time he asked to be placed on leave status for the remainder of the year. In December the decision was made not to

continue linguistic training as a part of the Institute of Social Anthropology program, and he left the staff to accept a position at the University of Oklahoma.

Both Drs. Kelly and Wonderly represented the Smithsonian Institution at the Mexican Government's "Round Table" anthropological conference in Jalapa, Veracruz, in August.

Perú.—Ozzie Simmons continued his teaching activities at the Instituto de Estudios Etnológicos in Lima, and continued to direct research in the mestizo village of Lunahuaná in the Cañete Valley south of Lima. In December Mr. Simmons was detailed to the United States Public Health Service and sent to Chile to participate in the evaluation of IIAA health projects in that country. This work continued until late January 1952. Mr. Simmons was brought to Washington in April 1952, following which he took leave to defend his dissertation at Harvard University, where he was awarded his doctorate. He returned to Lima in May to conclude his study in the Lunahuaná Valley.

EDITORIAL WORK AND PUBLICATIONS

There were issued during the year one Annual Report, four Bulletins, and one Publication of the Institute of Social Anthropology, as listed below:

Sixty-eighth Annual Report of the Bureau of American Ethnology, 1950-1951. ii+40 pp. 1952.

Bulletin 146. Chippewa child life and its cultural background, by Sister M. Inez Hilger. xiv+204 pp., 31 pls., 1 fig. 1951.

Bulletin 147. Journal of an expedition to the Mauvais Terres and the Upper Missouri in 1850, by Thaddeus A. Culbertson. Edited by John Francis McDermott. viii+164 pp., 2 maps. 1952.

Bulletin 148. Arapaho child life and its cultural background, by Sister M. Inez Hilger. xv+253 pp., 40 pls., 1 fig. 1952.

Bulletin 149. Symposium on local diversity in Iroquois culture. Edited by William N. Fenton. v+187 pp., 21 figs. 1951.

No. 1. Introduction: The concept of locality and the program of Iroquois research, by William N. Fenton.

No. 2. Concepts of land ownership among the Iroquois and their neighbors, by George S. Snyderman.

No. 3. Locality as a basic factor in the development of Iroquois social structure, by William N. Fenton.

No. 4. Some psychological determinants of culture change in an Iroquoian community, by Anthony F. C. Wallace.

No. 5. The religion of Handsome Lake; Its origin and development, by Merle H. Deardorff.

No. 6. Local diversity in Iroquois music and dance, by Gertrude P. Kurath.

No. 7. The Feast of the Dead, or Ghost Dance at Six Nations Reserve, Canada, by William N. Fenton and Gertrude P. Kurath.

No. 8. Iroquois women, then and now, by Martha Champion Randle.

Institute of Social Anthropology Publication No. 14. The Indian caste of Peru, 1795-1940. A population study based upon tax records and census reports, by George Kubler. vi+71 pp., 2 pls., 1 fig., 20 maps. 1952.

The following publications were in press at the close of the fiscal year:

- Bulletin 145. The Indian tribes of North America, by John R. Swanton.
- Bulletin 150. The modal personality of the Tuscarora Indians, as revealed by the Rorschach test, by Anthony F. C. Wallace.
- Bulletin 151. Anthropological Papers, Nos. 33-42.
- No. 33. "Of the Crow Nation," by Edwin Thompson Denig. With biographical sketch and footnotes by John C. Ewers.
- No. 34. The water lily in Maya art: A complex of alleged Asiatic origin, by Robert L. Rands.
- No. 35. The Medicine Bundles of the Florida Seminole and the Green Corn Dance, by Louis Capron.
- No. 36. Technique in the music of the American Indian, by Frances Densmore.
- No. 37. The belief of the Indians in a connection between song and the supernatural, by Frances Densmore.
- No. 38. Aboriginal fish poisons, by Robert F. Heizer.
- No. 39. Aboriginal navigation off the coast of Upper and Baja California, by Robert F. Heizer and William C. Massey.
- No. 40. Exploration of the Adena Mound at Natrium, W. Va., by Ralph S. Solecki.
- No. 41. The Wind River Shoshone Sun Dance, by D. B. Shimkin.
- No. 42. Current trends in the Wind River Shoshone Sun Dance, by Fred Voget.
- Bulletin 152. Index to Schoolcraft's "Indian Tribes of the United States," compiled by Frances S. Nichols.
- Bulletin 153. La Venta, Tabasco: A study of Olmec ceramics and art, by Philip Drucker.
- Bulletin 154. River Basin Surveys Papers: Inter-Agency Archeological Salvage Program. Nos. 1-6.
- No. 1. Prehistory and the Missouri Valley Development Program: Summary report on the Missouri River Basin Archeological Survey in 1948, by Waldo R. Wedel.
- No. 2. Prehistory and the Missouri Valley Development Program: Summary report on the Missouri River Basin Archeological Survey in 1949, by Waldo R. Wedel.
- No. 3. The Woodruff Ossuary, a prehistoric burial site in Phillips County, Kans., by Marvin F. Kivett.
- No. 4. The Addicks Dam site:
- I. An archeological survey of the Addicks Dam basin, Southeast Texas by Joe Ben Wheat.
- II. Indian skeletal remains from the Doering and Kobs sites, Addicks Reservoir, Texas, by Marshall T. Newman.
- No. 5. The Hodges site:
- I. Two rock shelters near Tucumcari, N. Mex., by Herbert W. Dick.
- II. Geology of the Hodges site, Quay County, N. Mex., by Sheldon Judson.
- No. 6. The Rembert mounds, Elbert County, Ga., by Joseph R. Caldwell.
- Appendix. List of River Basin Surveys reports published in other series.
- Bulletin 155. Settlement patterns in the Virú Valley, Perú, by Gordon R. Willey.
- Bulletin 156. The Iroquois Eagle Dance, an offshoot of the Calumet Dance, by William N. Fenton, with an analysis of the Iroquois Eagle Dance and songs, by Gertrude Prokosch Kurath.

Institute of Social Anthropology Publication No. 13. *The Tajin Totonac: Part 1. History, subsistence, shelter, and technology*, by Isabel Kelly and Angel Palerm.

Institute of Social Anthropology Publication No. 15. *Indian tribes of Northern Mato Grosso, Brazil*, by Kalervo Oberg. With appendix by Marshall Newman, entitled "Anthropometry of the Umotina, Nambicuara, and Iranxe, with comparative data from other northern Mato Grosso tribes."

Institute of Social Anthropology Publication No. 16. *Penny capitalism: A Guatemalan Indian economy*, by Sol Tax.

Publications distributed totaled 21,505, as compared with 22,377 for the fiscal year 1951.

ARCHIVES

Miss Mae W. Tucker, archivist for the Bureau of American Ethnology, retired at the end of February 1952 after nearly 27 years' service with the Institution.

Notable additions to the collections during the fiscal year were the diaries of John K. Hillers, who accompanied Maj. J. W. Powell on his famous voyage through the Grand Canyon of the Colorado in 1871 and 1872. Mr. Hillers, who became photographer for the expedition, kept a full daily record of the expedition, which constitutes a most valuable addition to our knowledge of this famous adventure. The diaries were presented to the Bureau by Mrs. J. K. Hillers of Washington, D. C., daughter-in-law of the author.

Mrs. Alice Norvell Hunt, of Washington, D. C., presented to the Bureau an interesting collection of early photographs of western Indians collected by her father while an army officer in the West and Southwest. Comprising photographs made by Baker and Johnston; Addison of Fort Sill, Oklahoma Territory; O. S. Goff, Dickinson, N. Dak.; A. S. Goff, Fort Custer, Mont.; Chr. Barthelmess, Fort Keogh, Mont.; and Chase Thorne, El Paso, the 46 prints, including a number of famous Indians, are all new to the collections.

William H. Myer, of Washington, D. C., and Mrs. Annie Lee Myer Turner, of Carthage, Tenn., presented a book containing 75 drawings by Indians of the Southern Plains. The book was acquired about the year 1880 by Capt. David N. McDonald and was later purchased by W. E. Myer, father of the donors.

Mrs. J. C. Cardell, of Lenoir, N. C., presented a Mohawk dictionary of 973 pages with French equivalents. It is in the dialect spoken at Lake of Two Mountains, Caughnawaga and St. Regis in the Province of Quebec, Canada, and is the work of Rev. J. A. Cuoc. It was obtained later by Jeremiah Curtain, father of the donor.

Henry Lookout, of Pawhuska, Okla., son of the late Fred Lookout, last principal chief of the Osage Nation, sent to the Bureau on indefinite loan a group of papers relating to the history of the Osage Nation, passed down from father to son for generations. Among the

documents is a treaty of peace between the United States, the Osage Nations, and the Missouri and Arkansas Tribes, signed in 1815 at Portage des Sioux in what is now St. Charles County, Mo. In addition to the many Indian seals and signatures, it carries the signatures of William Clark, of Lewis and Clark expedition fame, Ninian Edwards, governor of the Territory of Illinois, and Auguste Chouteau, principal figure of the early fur trade in the West. Also included in the material from Mr. Lookout is a Jefferson medal of 1801, made for presentation to Indian leaders. These are extremely rare since they were usually buried with their recipient.

COLLECTIONS

Acc. No.

191398. Mold and finished face mask of Frances Densmore, made by Mička in 1912.
 192829. Cornhusk ceremonial mask, Grand River Iroquois, Ontario, Canada, probably collected by J. N. B. Hewitt.
 (Through Dr. M. W. Stirling) Ceremonial and historical wampum of the Iroquois, collected in 1928-29 by J. N. B. Hewitt at the Six Nations Reserve, Ontario, Canada.
 192830. Shell necklace used in the Tutelo adoption ceremony, collected in 1941 by W. N. Fenton.

FROM RIVER BASIN SURVEYS

193461. Skeletal and archeological material from sites Mc44 and Ha6, Buggs Island Reservoir, Roanoke River, near Clarksville, Va.
 191031. (Through Dr. F. H. H. Roberts, Jr.) Vertebrate material collected by Dr. Theodore E. White, May 1951, Garza-Little Elm Dam, north fork of Trinity River, Denton County, Tex.
 191587. Fossil vertebrate material from Oligocene and Miocene deposits in the Canyon Ferry Reservoir area, Montana, collected by Dr. Theodore E. White, July 1951.
 192062. 5 fossil vertebrates including mammals, reptiles, and fishes, from Garrison Reservoir area near Williston, N. Dak., collected by Dr. Theodore E. White, August 1951.
 192063. 1 mosasaur skeleton and shark teeth from Pierre formation, Upper Cretaceous, in Oahe Reservoir area near Pierre, S. Dak., collected by Dr. Theodore E. White, August 1951.
 193460. Tympanic bullae of kangaroo rat from near Pierre, S. Dak.
 193835. (Through R. L. Stephenson) Approximately 120 land mollusks from Texas.

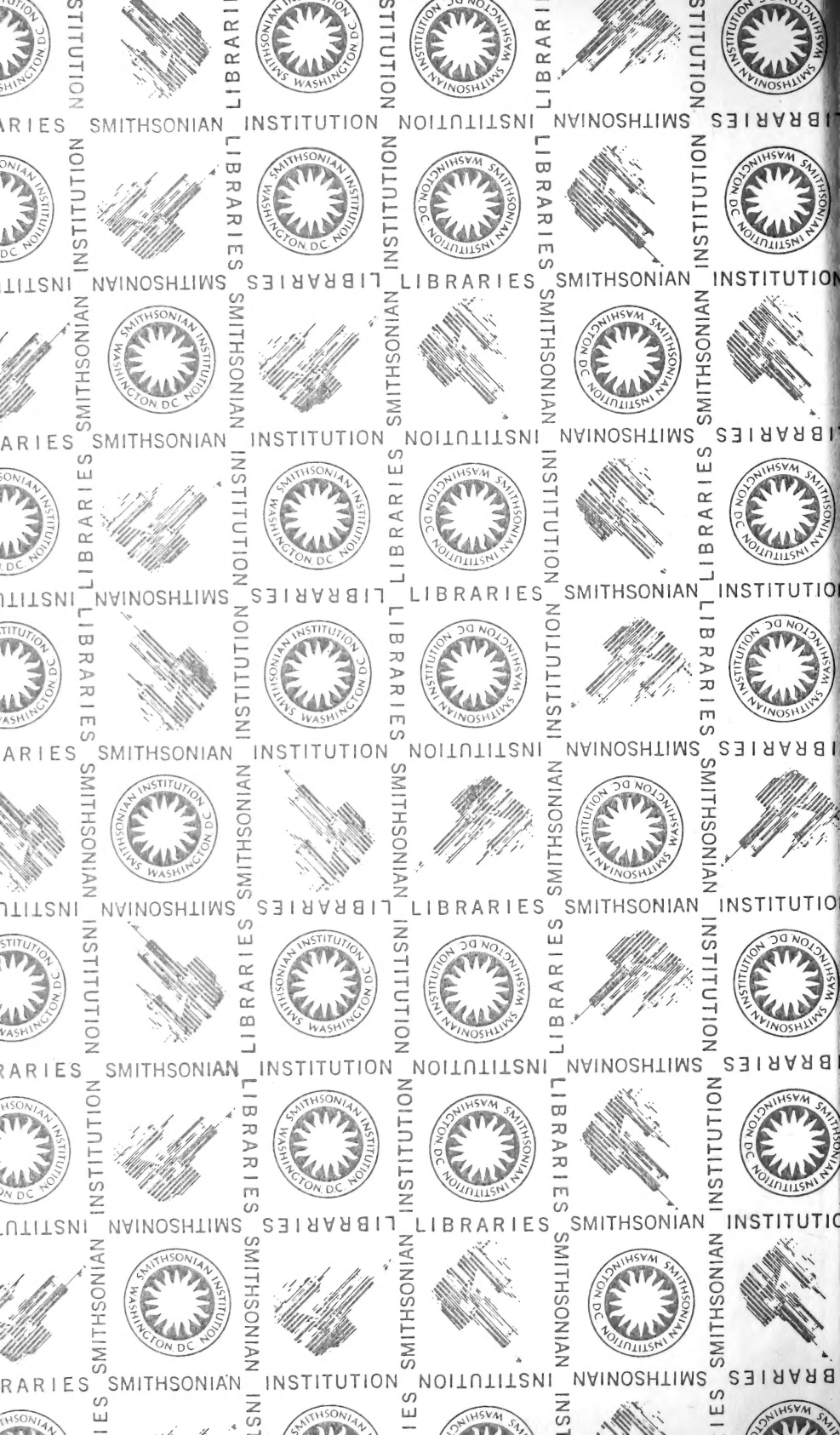
Respectfully submitted.

M. W. STIRLING, *Director.*

Dr. A. WETMORE,

Secretary, Smithsonian Institution.







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